DOCUMENT RESUME

ED 150 294 CE 014 166

AUTHOR	Strandmark, John F.; And Others
TITLE	Building Experience-Based Career Education: First Year Evaluation Report, 1976-1977.
INSTITUTION	Research for Better Schools, Inc., Philadelphia, Pa.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.; Philadelphia School District, Pa.
PUB DATE	25 Aug 77
GRANT	J03-76-00230-502
NOTE	123p.; Appendix B (evaluation instrument) was removed because of copyright
EDRS PRICE	MF-$0.83 HC-$6.01 Plus Postage.
DESCRIPTORS	*Academic Achievement; *Career Education; Career Exploration; *Educational Alternatives; Educational Objectives; Parent Attitudes; Program Administration; Program Descriptions; *Program Development; Program Effectiveness; *School Community Cooperation; Senior High Schools; Sex Stereotypes; Skill Development; Student Attitudes; Student Characteristics; Student Improvement; Teacher Attitudes; *Vocational Development; *Work Experience Programs
IDENTIFIERS	*Experience Based Career Education; Pennsylvania (Philadelphia)

ABSTRACT

A third-party evaluation was conducted of the first year of the Building Experience-Based Career Education project (BEBCE). BEBCE is a planned adaptation of the Northwest Regional Education Laboratory model (NWREL) to meet the needs of students in Philadelphia and to assist high school students in successful transition to adulthood. Career development, life skills, and basic skills are emphasized as well as extensive student exposure and experience in community learning sites. Student growth is facilitated primarily through seven individualized learning activities: career explorations, investigations, projects, life competencies, student journals, employer seminars, and term papers. Data is provided concerning five process objectives (selection and preparation of staff, preparation of learning resources, selection of students, preparation of student learning plans, implementation of learning activities), and concerning student outcomes and participant perceived effects. In addition, the evaluators addressed the area of avoidance of sex-role stereotyping in the program. Recommendations made included the following: increase nontraditional career opportunities and role models for students and provide additional staff training in sex fairness and in individualization of instruction. (TA)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED150294

Building Experience-Based Career Education

First Year Evaluation Report

Prepared by:

John F. Strandmark
Joan L. Buttram
Mark W. Blair

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CE 014 160

Research for Better Schools, Inc.
Office of Planning and Evaluation
1700 Market Street
Philadelphia, Pennsylvania 19103

August 25, 1977

The preparation and publication of **Building Experience-Based Career Education: First Year Evaluation Report, 1976-1977** has been funded in part by a subcontract let by the School District of Philadelphia to Research for Better Schools, Inc. This report is part of an independent third party workscope required by a grant received by the School District of Philadelphia from the United States Office of Education for an exemplary project in vocational education under Section 142(c) of Part D of the Vocational Education Act of 1963 as amended, Grant Number JO3-76-00230(502).

Building Experience-Based Career Education: First Year Evaluation Report, 1976-1977 was prepared by John F. Strandmark, Joan L. Buttram, and Mark W. Blair.

Research for Better Schools, Inc.
Office of Planning and Evaluation
1700 Market Street
Philadelphia, Pennsylvania 19103

TABLE OF CONTENTS

		Page
	INTRODUCTION	1
I.	PROGRAM DESCRIPTION	4
II.	IMPLEMENTATION OF BEBCE	14
III.	PROGRAM OUTCOMES	47
IV.	VOCATIONAL EDUCATIONAL ACT - PART D CRITERIA	77
V.	SUMMARY AND RECOMMENDATIONS	88
	APPENDICES	

LIST OF TABLES

II. IMPLEMENTATION OF BEBCE

		Page
1.	Community Learning Sites	16
2.	Community Learning Sites with Multiple Positions	17
3.	Student Choice of Community Sites for Career Explorations	19
4.	Student Choice of Community Sites for Investigations	20
5.	Grade Level	23
6.	Sex	24
7.	Race	24
8.	Letter Grade Average	25
9.	Paternal Level of Education	26
10.	Maternal Level of Education	26
11.	Occupational Level of Father	27
12.	Occupational Level of Mother	28
13.	Reason for Application to BEBCE	29
14.	Primary Post-Secondary Plans	30
15.	Secondary Post-Secondary Plans	31
16.	Immediate Occupational Plans	32
17.	Long Range Occupational Plans	33
18.	Career Explorations	36
19.	Site Utilization for Explorations	37
20.	Investigations	38
21.	Site Utilization for Investigations	39

Page

22. Life Competencies Completed 40

23. Life Competencies Chosen 41

24. Individual Student Projects 42

25. Employer Seminars Related to Specific Occupations 44

26. Employer Seminars Related to Personal Growth 45

III. PROGRAM OUTCOMES

27. Initial and Final Group Sizes 48

28. BEBCE Students Within Group Career Knowledge Comparisons 57

29. Between Group Career Knowledge Comparisons 58

30. BEBCE Students ACD: Career Planning Knowledge 59

31. ACD: Career Planning Knowledge 60

32. BEBCE Students SAS: Attitude Toward Learning Environments 60

33. SAS: Attitude Toward Learning Environments 61

34. BEBCE Students SAS: Acceptance of Self 62

35. SAS: Acceptance of Self 63

36. BEBCE Students SAS: Acceptance of Others 63

37. SAS: Acceptance of Others 64

38. BEBCE Students CAT: Reading Comprehension 65

39. BEBCE Students CAT: Arithmetic Computations 66

40. Staff Perceptions 69

41. Community Instruction Perceptions 70

42. Parent Perceptions 72

43. Summary of Student Outcome Results 74

Page

IV. VOCATIONAL EDUCATION ACT - PART D CRITERIA

44. ACD: Occupational Characteristics 82

45. ACD: Occupational Preparation Requirements 83

46. ACD: Career Planning Knowledge 83

47. CAT: Reading Comprehension 83

48. CAT: Arithmetic Computations 84

V. SUMMARY AND RECOMMENDATIONS

49. Learning Activities Completed by BEBCE Students 92

50. Summary of Student Outcome Results 94

INTRODUCTION

Building Experience-Based Career Education: First Year Evaluation Report is being submitted to the School District of Philadelphia as the last task of an independent third party evaluation. The School District of Philadelphia was awarded funds under Part D of the Vocational Education Act of 1963 as amended to implement an exemplary demonstration of the National Institute of Education's (NIE) Experience Based Career Education. A requirement of the competition was the retaining of a third party to conduct an independent evaluation of the processes and outcomes of the exemplary demonstration. The School District of Philadelphia conducted a competition to identify the third party and contracted with Research for Better Schools, Inc. (RBS) to perform evaluation services for the Building Experience-Based Career Education (BEBCE) Program.

This report is the year end evaluation report of the first year of the exemplary demonstration. This report documents both program and evaluation processes over the first year of the program.

Three major factors have affected the implementation of the BEBCE program and the preparation of this report: The late date of the award of the grant by the United States Office of Education to the School District, a prolonged transportation strike, and the late date of award and finalization of the third party contract.

The School District of Philadelphia received formal notification of its award of Vocational Education Act - Part D funding late in the fall

of 1976. Final notification was received after the scope of the initial proposal was reduced from the adaptation of three versions of EBCE to the adaptation of one version of EBCE to the needs of students in Philadelphia.

During the implementation of the program, the public transit system was inoperative due to a prolonged transit strike. Special transportation arrangements had to be made for students participating in the BEBCE program. Staff arranged and furnished transportation for students or students made their own travel arrangements. These activities diverted staff from intended functions to the delivering of students to program sites in the community.

The School District of Philadelphia issued a request for proposals for third party evaluation of the BEBCE program on December 7, 1976. RBS submitted a proposal to conduct this evaluation on January 14, 1977. A committee of School District personnel recommended that RBS be the third party evaluator, and this recommendation was submitted to the Board of Education for action. The Board of Education passed a resolution on February 14, 1977 authorizing the retaining of RBS as the third party evaluator pending completion and signing of contracts. In mid-March 1977, RBS signed and forwarded to the School District copies of the contract. On June 3, 1977 RBS received its first copy of the contract signed by the School District.

The contracting procedures of the School District affected the execution of the evaluation workscope. The Executive Director of RBS was informed by the school district that RBS was not to conduct any portion

of the evaluation workscope unitl it received a copy of the signed contract. RBS personnel heeded this "prohibition" until they were able to convince school district personnel that RBS could wait no longer and implement the workscope.

The majority of evaluation observations and tasks were performed in May, 1977. The late start to the formal evaluation effort precluded the addressing of staff training. The workscope focussed instead on the delivery of the BEBCE program.

Chapter I of the report presents a description of the EBCE program the School District of Philadelphia intended to implement. Chapter II describes the BEBCE program as it was implemented. Chapter III presents the outcomes of the program. Chapter IV reviews the implementation of the program in terms of the U.S.O.E. funding criteria. Chapter V presents the summary and recommendations for the program.

1. PROGRAM DESCRIPTION

I. PROGRAM DESCRIPTION

Building Experience Based Career Education (BEBCE) was funded as a priority area I program under the Vocational Education Act, Part D, as an exemplary demonstration of the National Institute of Education's (NIE) Experience-Based Career Education (EBCE) Model. BEBCE is based on the Northwest Regional Education Laboratory (NWREL) model of EBCE; NWREL EBCE is one of four career education models developed under the sponsorship of the U. S. Office of Education and the National Institute of Education.

BEBCE is a planned adaptation of the NWREL model to the needs of students in Philadelphia. The BEBCE program is being implemented with students from Bartram High School, located in West Philadelphia. The learning and resource center of the program is housed separately at the Wolf Center, a junior high school located in Southwest Philadelphia.

The description of BEBCE provided in this chapter will provide the context within which evaluation conclusions presented in other sections of the report can be interpreted. The description has been derived from three primary sources: the USOE project proposal submitted by the Philadelphia School District, NWREL EBCE program materials, and BEBCE program records.

The description of BEBCE provides program goals and objectives, as well as the procedures designed to accomplish them. Goals and objectives of BEBCE are presented first.

Program Goals and Objectives

Experience-based career education has been designed to assist high school students in successful transition to adulthood. Career development, life skills, and basic skills are emphasized as well as extensive student exposure to and experience in community sites. The overall purpose of the BEBCE program is to develop in students an increased sense of personal worth and self-confidence. This is accomplished by integrating students' knowledge of a variety of careers with the acquisition of cognitive, interpersonal, and affective skills through participation in a series of individually planned school and community experiences with identified learning outcomes. Particular emphasis is placed on learning for each student tailored to meet her/his identified needs and interests. Effort is also made to reduce or avoid sex-role stereotyping on the part of both BEBCE staff and students.

Accomplishment of Program Goals

BEBCE has designed the following procedures to accomplish program goals and objectives. Procedures include organization of student learning, individualization of instruction, provision of student counseling, and learning center and community site resources intended to accomplish student learning. Each of these is described in detail below.

1. Organization of Student Learning.

EBCE addressed student growth in three areas: career development, life skills, and basic skills. Each of these has been further explicated by BEBCE.

CAREER DEVELOPMENT	LIFE SKILLS	BASIC SKILLS
Career Knowledge Self Awareness of Careers	Life Competencies	English Mathematics

Career development is addressed by specific program learning activities. Career explorations and investigations are designed to facilitate identification of student career interests, build career knowledge, and develop student understanding of work primarily at community sites. Student journals and employer seminars and field trips also contribute to student growth in career development.

Life skills development is addressed by certification in life competencies. Additional support is provided by employer seminars and field trips.

Basic skills growth is addressed in BEBCE by student projects. Student journals and term papers provide for student growth in writing skills.

Student growth in BEBCE is facilitated primarily through seven student learning activities or requirements:

1. Career explorations
2. Investigations
3. Projects
4. Life competencies
5. Student journals
6. Employer seminars
7. Term papers

a. Career Explorations. Career explorations are designed to give students a general overview of various jobs and careers. Students spend approximately 3 days at community sites which match their career interests. Explorations are the essential first step in the student's quest to determine if a particular career "fits." During career explorations, students complete Exploration Packages. These packages help students organize their employer site experiences to better understand their career interests and options. Students may describe job requirements and functions for particular jobs, and then match their own strengths and interests to those of particular careers they are considering.

Activities engaged in by students during career explorations are prescribed by the Learning Site Analysis Form. This form is completed jointly by the employer and the BEBCE employer relations specialist when the site is first recruited for participation in the BEBCE program. The student and employer frequently select certain activities which provide a representative view of that particular career's functions and responsibilities. By sampling, students are able to explore the career realistically within a limited time period. Students are required to complete three career explorations.

b. Investigations. Students are required to arrange for investigations which encompass longer periods of in-depth hands-on involvement at community sites. During investigations, students work more extensively with an employer. Students gain practice in job skills through skill development activities specified in the Learning Site Analysis Form. Because more time is devoted

to investigations, students are able to complete more activities than during the career exploration.

Investigations encourage students to gain a more realistic view of the world of work. At most placements, students are given responsibility for actual work and expected to meet requirements established for employees (promptness, dress, personal conduct). Students often have the opportunity to develop skills required for specific jobs. Students are required to complete two investigations.

c. Projects. Projects are designed by BEBCE learning managers based on the contents of the Learning Site Analysis Form and negotiations with students. Once projects are designed, employers review content of projects for appropriateness and relevance. These projects provide for student growth not only in career development but also in basic skills and life skills. Although most projects are arranged in this manner, a few students are allowed to carry out projects that do not relate to their investigations. These projects must also be negotiated with the learning managers. Students are required to complete one project.

d. Life Competencies. Life competencies are identified by the local community as critical to successful adult living. Competency in these critical skills is certified by community members and representatives. BEBCE requires students to be certified in five life competencies; one of which is "Personal History." For their remaining four competencies, students can choose from the following selection:

1. credit
2. checking account
3. insurance
4. income tax
5. budgeting
6. physical health
7. emergencies
8. electoral processes
9. government
10. individual rights
11. public agencies
12. employment
13. automobile
14. renting/owning a home

Steps students typically follow consist of first reviewing and studying relevant materials and second, demonstrating to a community certifier mastery of these materials.

e. Student Journals. Students are to maintain journals in which they record their program experiences on a regular basis. Journals allow students and staff to share thoughts and feelings with each other over an extended period of time. Reactions to career explorations and investigations as well as feelings about expectations and BEBCE are appropriate topics as are feelings about any other topic. Students' ability to communicate and other interpersonal skills are strengthened. By providing written

feedback, staff develop and challenge student awareness of self and career or life options. Journals also help staff to keep in closer touch with individual student changes that can potentially affect program performance or personal development.

f. Employer Seminars. Employer seminars serve two major purposes. First, they allow important information to be readily transmitted to students about career development topics. Second, they encourage the exchange of ideas among students.

g. Term Papers. As part of Bartram High School requirements, students are required to submit a term paper on a subject of their choice.

2. Individualization of Instruction.

BEBCE learning managers are to negotiate individualized instruction with each student. This negotiation process results in the development of individual learning plans based on student needs and interests. In particular, projects and investigations for each student are designed to encourage growth in all three curriculum areas, career development, life skills, and basic skills. Individualization of instruction is consequently provided by the development of individualized learning projects for students based on particular needs and interests.

3. Student Counseling.

In the NWREL EBCE Model, no single staff member is assigned responsibility for providing counseling to students. Instead, all staff counsel students regarding their program performance. Staff ideally develop together a counseling plan for each student. This plan is then consistently followed by all staff in dealing with the student.

4. Learning Center and Community Site Resources.

Student learning in BEBCE occurs both at school and at community sites. At the learning center, students engage in work on projects, attend classes in math and English, review resource materials for certification in life competencies, and interact with staff concerning their program performance. Community sites foster student growth in career development by providing sites for career explorations and investigations. In addition, community representatives act as certifiers for student life competencies. Student learning activities that occur at community sites are interfaced with student learning activities that occur at the learning center. Together they provide for a comprehensive program of student learning.

Program Staffing

Staffing for BEBCE is represented by three groups: (1) High School BEBCE staff, (2) Administrative staff, and (3) the Advisory Council. Each group is described below.

1. High School BEBCE Staff.

Five staff members are available to students in the BEBCE program. The staff includes two employer relations specialists, two learning managers and one supervisor.

The employer relations specialists primarily develop employer sites for student placements, monitor student work and progress at employer sites, and counsel students about career development, especially in planning for career explorations and investigations.

Learning managers develop individual student learning plans with accompanying instructional material, supervise student work in the learning center, and advise students about their progress in BEBCE. Learning managers are charged with the preparation of individual student projects. Staff members share responsibility for the development and monitoring of student progress in the life competencies component.

Coordinating this staff is a supervisor who assumes programmatic responsibility for conduct of BEBCE activities. The supervisor also provides the link between program staff and administrative staff.

2. Administrative Staff.

Ultimate administrative responsibility for the program is held by the Executive Director of the Division of Career Education. The Director of Career Education Planning and Development is responsible for providing administrative supervision of the BEBCE program. A project coordinator is responsible for the day to day operation and administration of the program. Additional support in the areas of computerized resources, curriculum development, staff development, information dissemination, resource recruitment and career counseling is also available.

3. Advisory Council.

In addition to Philadelphia School District administrative support and guidance, BEBCE staff are assisted with program operation by the Advisory Council. It is composed of employer and community representatives. Formed over the spring and summer of 1977, it will be able to provide assistance for the 1977-78 program year.

Summary

Philadelphia School District BEBCE is an exemplary demonstration project of NIE's EBCE. Modifications in the NWREL EBCE model have been made by BEBCE in order to meet the needs of its particular high school population.

BEBCE functions for one senior high school. The learning and re[illegible] center is located at another site. The center maintains its own staff, community sites, and learning center resources.

Program goals focus on assisting high school students in successful transition to adulthood. In order to facilitate this transition, student growth is encouraged in career development, life skills, and basic skills by the completion of individualized learning activities in the community and in the school. Counseling provided by staff also help to direct student growth in these three areas.

Staff at three levels participate in the implementation. Direct implementation of BEBCE is carried out by five staff members at the learning center. Administrative support for BEBCE is provided by Philadelphia School District administrative personnel. In addition, an Advisory Council composed of community representatives recently formed will in the future provide assistance and guidance.

II. IMPLEMENTATION OF BEBCE

II. IMPLEMENTATION OF BEBCE

This chapter focuses on documenting the actual implementation of BEBCE. The chapter is organized by elements identified by BEBCE as critical to the successful implementation of the program:

1. Preparation of Learning Resources
2. Selection of Students
3. Preparation of Student Learning Plans
4. Implementation of Learning Activities
5. Avoidance of Sex-Role Stereotyping

The final element, avoidance of sex-role stereotyping, is dealt with in Chapter IV which addresses requirements of the U.S.O.E. competition. The other four elements are discussed below in terms of content, objectives, evaluation procedures, and findings.

Preparation of Learning Resources

The availability of learning resources is a factor central to program success. The program plan indicates the necessity of learning center resources and community site resources. Evaluation of this element assesses the extent to which planned resources were acquired and prepared for use to meet the needs of participating students.

1. Learning Center Resources.

Learning center resources include facilities allotted for program operation and materials for student learning. A Learning Center was established at the Wolf Center. Small tables, students record files,

and other instructional equipment were obtained. Instructional materials have been acquired and organized for individual student term papers and resource materials for life competencies. NWREL EBCE materials were used extensively by program staff for life competencies.

2. Community Site Resources.

Community learning sites recruited by BEBCE serve two important functions: (1) career exploration sites, (2) investigation sites. According to employee relations specialist's records, sixty-eight (68) positions for students were developed at a total of 36 community participants (see Appendix A for complete listing of community learning sites). Table 1 presents a categorization of positions available to students by occupational category. As illustrated in Table 1 community sites included the fields of airlines, business, computer operation, education, health care, law, media and trades.

Table 1

Community Learning Sites

Type of Occupation	# of Positions at Community Learning Sites	Total
Airlines		12
aircraft maintenance/service	3	
freight sales/services	3	
passenger sales/service	4	
weights and balances	1	
air traffic control	1	
Business		15
office work	9	
sales	3	
hotel management	3	
Computer Operator		4
Education		3
Health Care		4
dentistry	1	
nursing	1	
x-ray technician	1	
pharmacy	1	
Law		2
Media		10
electronic (TV, radio)	4	
print	6	
Trades		10
cosmetology	3	
engine repair	2	
plumbing	2	
carpentry	1	
food preparation	2	
Others		8
clothing design	1	
environment	1	
social services	1	
photography	1	
court reporter	2	
armed services	2	
TOTAL		68

A number of community participants have multiple positions for students. A listing of these sites with four or more positions available is presented in Table 2.

Table 2

Community Participants with Multiple Positions

Community Participant	# of Positions Available
School District of Philadelphia	10
Defense Personnel Support Services	6
Philadelphia Naval Yard	5
American Airlines	5
Eastern Airlines	5
Sheraton Inn	4
TOTAL	35

The table shows that over half of all positions available for students are derived from six community learning sites.

The School District of Philadelphia contributes more than 14 percent of all positions available to students. Five of the positions available for students are in training programs. Four of these (cosmetology, printing, small engine repair and auto mechanics) are offered at the John F. Kennedy Center for Vocational Education and the fifth (x-ray technician) is based at the Hospital of the University of Pennsylvania.

Of major concern to the BEBCE program was the location of sites in relation to the school and public transportation. Sites should be in reasonable proximity to both the school and public transportation. The Employer Relations Specialists (ERS) developed sites which cluster around West Philadelphia in the environs of Bartram High School, South and Southwest Philadelphia near the Wolf Center, and Center City. These groups of sites are adequately served by public transportation and are reasonably close to the school and learning center.

The Learning Site Analysis Form (LSAF) provides a source of information which can be used as indices of student learning opportunity. Learning Site Analysis Forms describe potential learning activities at each community site; they are completed jointly by the employer relations specialist and the community representative. The LSAF also provides learning managers with important information for the development of student projects. Finally it permits both employee relations specialists and learning managers to counsel students more effectively.

Procedurally, the Employee Relations Specialists were to complete LSAF's prior to a student commencing an investigation at that site. Over the course of the semester (inclusive of May, 1977) the ERS completed LSAFs for 16 of 65 positions. There were incomplete forms for another 6 positions. Files contained supportive material on 7 of the remaining 41 positions (e.g., job descriptions, yearly reports, etc.). The on-site supervisor of the program noted that the completion of the LSAFs was hampered by the transit strike.

The BEBCE Program required each student to complete at least three career explorations and two investigations. Sufficient numbers of community sites must be recruited to meet career exploration and investigation program requirements as well as students needs and interests.

a. Career Explorations. Sixty-eight (68) community sites were recruited for career explorations. Community sites were generally available for use by more than one student. Sufficient numbers of sites were recruited to meet program requirements.

Community sites should also meet areas of student interest. Of the 30 students in the program, all expressed one career preference and 21 stated two preferences. Table 3 presents the number of students whose career interests were matched with community learning sites for career explorations.

Table 3

Student Choice of Community Sites for Career Explorations

	1st Choice		2nd Choice	
	n	%	n	%
Students	26	87	17	81

BEBCE was able to provide career explorations in 87 percent of students' choice of careers. In cases where students' first choice was not met, often a second choice was met.

Thus BEBCE was able to provide sufficient numbers of community sites to meet program requirements and was generally able to meet student interests.

b. Investigations. Sixty-five (65) of the 68 sites available for career explorations were available to students for investigations. Community sites were generally available for use by more than one student. Sufficient number of sites were recruited to meet program requirements.

Community sites for investigations must also meet student interests and needs. Table 4 presents number of community sites available for investigations which matched student career interests.

Table 4

Student Choice of Community Sites for Investigations

	1st Choice		2nd Choice	
	N	%	N	%
Students	19	63	12	57

Sixty three (63) percent of students completed investigations at sites which matched their first career choice.

Of those 21 students who expressed a second career preference, 57 percent completed an investigation of that career.

Selection of Students

The fair, unbiased selection of students is the objective of this process. A secondary objective is obtaining samples for both program implementation and evaluation purposes. The program plan provided for the unbiased recruitment of students, screening of the recruited students according to criteria established by the school principal to create an

applicant pool and random assignment of students in the pool to the BEBCE program. Random construction of general comparison and work experience comparison groups was also to be undertaken.

The random selection of students is an unbiased procedure. Bias may enter into the selection process only if the recruitment of students resulted in an applicant pool that was biased. This section of the report documents recruitment and student selection procedures. The resulting program and comparison student samples are then demographically described.

1. Student Recruitment

Student recruitment for BEBCE was conducted by program staff at Bartram High School. Enrollment was limited to high school seniors. Recruitment was conducted by visits to all senior English classes. Two hundred fifty (250) students applied for admission into the program. Students were screened and ranked utilizing attendance, frequency of disciplinary problems, and academic performance as criteria. This process yielded three groups of students ranked according to the criteria which the school principal felt would insure student success in the BEBCE program.

2. Student Selection

The three groups of students, one program and two comparison, were formed according to the following procedures.

a. BEBCE Program. Program staff began selection procedures by interviewing those students placed in the first-ranked group and their parents. If the parents agreed to let their daughter or son participate, that student was placed on the class list. Program staff progressed to

the second and finally to the third-ranked groups in order to obtain 30 students for BEBCE program participation.

Since randomization was not employed, two groups were to be constructed for comparison purposes. The first group was to represent the general student body of Bartram High School. The second group was to represent Work Experience Program students at Bartram High School. Each is discussed separately.

b. General Comparison Group. The RBS evaluation proposal indicated that 50 students were to be randomly drawn from the total twelfth grade population of the participating high school. Arrangements were to be made by BEBCE program staff. The principal of the high school declined to give permission for a sample of 50 students to be randomly selected from the rolls of the high school. The high school administration offered two advisory groups for this comparison. The administration of the high school viewed these groups as representative of the entire high school. These groups contained 42 students.

c. Work Experience Comparison Group. Forty (40) students were randomly selected from Bartram High School Work Experience Program rolls. RBS performed the selection.

3. Student Samples

Program and comparison student samples are described below. Further documentation of the fairness of recruitment procedures is provided by examining the distribution array of student characteristics. Student characteristics include grade level, sex, race, grade point average, parental educational and occupational level, student reasons for application to BEBCE, and post-secondary occupational plans.

a. Grade Level. Almost all students in the three groups were in the 12th grade. The general comparison group had in addition one student in the ninth grade and the work experience comparison group had one student in each of the 10th and 11th grades. Table 5 presents information regarding the grade level of students.

Table 5

Grade Level

Grade Level	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
9	0	0	1	2	0	0
10	0	0	0	0	1	5
11	0	0	0	0	1	5
12	30	100	36	86	18	90
No Response	0	0	5	12	0	0
Total	30	100	42	100	20	100

b. Sex. The program and work experience comparison group each contained similar proportions of females to males. Approximately 60 percent of these groups were female. The general comparison group was 60 percent male. Information about the sexual composition of these groups is summarized in Table 6.

Table 6

Sex

Sex	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
M	11	37	25	60	8	40
F	19	63	17	40	12	60
Total	30	100	42	100	20	100

c. Race. Eighty three (83) percent of BEBCE students were non-white comparing with 90 percent of the general comparison and 70 percent of the work experience comparison students. The work experience comparison group contained the highest percentage of white students, 30 percent, as opposed to 17 percent and 10 percent in the BEBCE and general comparison groups respectively. Racial composition data are presented in Table 7.

Table 7

Race

Race	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
Black	19	63	31	74	13	65
White	5	17	4	10	6	30
Hispanic	3	10	3	7	1	5
Other	1	3	1	2	0	0
No Response	2	7	3	7	0	0
Total	30	100	42	100	20	100

d. Achievement Level. The majority of students in all three groups were B or C average students. The program group had a considerably larger proportion of B average students (43 percent) than either the general comparison (19 percent) or work experience comparison group (25 percent). These data are summarized in Table 8.

Table 8

Letter Grade Average

GPA	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
A	3	10	3	7	2	10
B	13	43	8	19	5	25
C	13	43	27	64	11	55
D	0	0	1	2	1	5
E	0	0	0	0	0	0
No Response	1	3	3	7	1	5
Total	30	49	42	99	20	100

e. Parental Educational Level. Students who participated in the evaluation of BEBCE were asked to indicate the educational level of each of their parents. In all groups, approximately 40 percent of the fathers and mothers were at least high school graduates. Approximately 40 percent of the fathers had completed some high school or less. Twenty (20) percent of the mothers in the program group completed some high school or less as compared with 26 percent in the general comparison and 40 percent in the work experience comparison groups. Table 9 presents information regarding paternal level of education and Table 10 presents information regarding maternal educational level.

Table 9

Paternal Level of Education

Paternal Level of Education	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
Some High School or Less	11	37	13	31	7	35
High School Diploma	11	37	15	36	8	40
Some College	0	0	1	2	2	10
College Degree	2	7	2	5	2	10
Graduate School	1	3	2	5	0	0
Other	3	10	0	0	1	5
No Response	2	7	9	21	0	0
Total	30	101	42	100	20	100

Table 10

Maternal Level of Education

Maternal Level of Education	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
Some High School or Less	6	20	11	26	8	40
High School Diploma	12	40	20	48	8	40
Some College	2	7	0	0	0	0
College Degree	2	7	4	10	2	10
Graduate School	1	3	2	5	1	5
Other	5	17	1	2	0	0
No Response	2	7	4	10	1	5
Other	20	101	42	101	20	100

f. Parents' Occupation Level. Students were asked to indicate parents' occupational level. Approximately 60 percent of fathers of work experience comparison students were skilled or semi-skilled workers. This compares with 43 percent of the fathers of BEBCE students and 33 percent

of the fathers of general comparison students. Nearly 35 percent of the fathers of work experience comparison students were employed as higher executives, business managers or administrative personnel. Nineteen (19) percent of the general comparison and 10 percent BEBCE group fathers were employed in this capacity.

Nearly 50 percent of mothers of BEBCE and work experience comparison students consider themselves homemakers while 31 percent of the general control mothers were homemakers. Fifty one (51) percent of the mothers in the general comparison were working comparing with 43 percent and 40 percent of the BEBCE and work experience comparison mothers respectively. Tables 11 and 12 present data concerning occupational level of parents.

Table 11

Occupational Level of Father

Paternal Occupational Level	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
Higher Executives	0	0	1	2	2	10
Business Managers	3	10	2	5	3	15
Administrative Personnel	0	0	5	12	2	10
Clerical and Sales Worker	3	10	0	0	1	5
Skilled Manual Employees	6	20	9	21	8	40
Machine Operators	7	23	5	12	3	15
Unskilled Employees	2	7	5	12	0	0
Homemaker	0	0	0	0	0	0
Unemployed	0	0	4	10	0	0
Other	7	23	4	10	1	5
No Response	2	7	7	17	0	0
Total	30	100	42	101	20	100

Table 12

Occupational Level of Mother

Maternal Occupational Level	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
Higher Executives	0	0	2	5	0	0
Business Managers	6	20	2	5	2	10
Administrative Personnel	2	7	2	5	1	5
Clerical and Sales Workers	3	10	6	14	3	15
Skilled Manual Employees	1	3	4	10	0	0
Machine Operators	0	0	3	7	0	0
Unskilled Employees	1	3	2	5	2	10
Homemaker	14	47	13	31	9	45
Unemployed	0	0	2	5	0	0
Other	2	7	1	2	0	0
No Response	1	3	5	12	3	15
Total	30	100	42	101	20	100

g. Student Reasons for Applying to BEBCE. All students applying to BEBCE were asked to rank up to three reasons for applying for enrollment in the program. Around 35 percent of those chosen for participation stated their primary reason was to find out about careers. Thirty three (33) percent of students listed this reason as their second choice. The next frequent first and second choice was job training. This question did not apply to the comparison groups because they were not formed from the applicant pool for the BEBCE program. Data presented in Table 13 reflect responses from BEBCE program participants only.

Table 13

Reason for Application to BEBCE

Reason for Application	Primary Reason		Secondary Reason	
	n	%	n	%
Post-secondary counseling	5	17	2	7
More individual attention	1	3	0	0
Find out about classes	11	37	10	33
Learning activities outside school	1	3	1	3
Program different from regular school	0	0	2	7
Help in finding job	1	3	3	10
Make new friends	0	0	1	3
Job training	9	30	10	33
Other	1	3	0	0
No Response	1	3	1	3
Total	30	99	30	99

h. Post Secondary Plans. Students were asked to indicate their choices for post secondary plans. The largest percentage of all three groups expressed that full time employment was their primary choice. The number of students in each group choosing this plan differs markedly. While 50 percent of those in the work experience comparison expressed this choice, only 26 percent and 23 percent of the general comparison and BEBCE students respectively selected full time employment as their primary choice. Roughly 50 percent of all groups expressed an interest in further formal education.

The most popular second choice varied with each group. BEBCE students chose full-time employment as the most popular secondary choice while the general comparison students expressed equal interest in apprenticeships/on-the-job training and attending a four year college. Work

experience comparison students chose attendance at a two year vocational school as their most popular secondary choice. Tables 14 and 15 summarize student post-secondary plans.

Table 14

Primary Post-Secondary Plans

Primary Post-Secondary Plan	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
FT Employment	7	23	11	26	10	50
Apprentice/on-the-job training	1	3	2	5	1	5
Military service/ service academy	2	7	6	14	0	0
Homemaker	0	0	0	0	0	0
Voc., Tech., Trade/ Business School	5	17	7	17	2	10
Two Year Academic College	2	7	4	10	4	20
Two Year Vocational College	2	7	0	0	0	0
Four Year College	6	20	8	19	3	15
PT Employment	3	10	2	5	0	0
Other	1	3	0	0	0	0
No Response	1	3	2	5	0	0
Total	30	100	42	101	20	100

Table 15

Secondary Post-Secondary Plans

Secondary Post-Secondary Plan	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
FT Employment	9	30	5	12	0	0
Apprentice/on-the-job training	1	3	9	21	2	10
Military service/ Service Academy	2	7	3	7	1	5
Homemaker	0	0	0	0	1	5
Voc., Tech., Trade/ Business School	7	23	6	14	4	20
Two Year Academic College	2	7	3	7	1	5
Two Year Vocational College	2	7	0	0	6	30
Four Year College	1	3	9	21	0	0
PT Employment	4	13	3	7	3	15
Other	0	0	1	2	0	0
No Response	2	7	3	7	2	10
Total	30	100	42	98	20	100

i. Immediate Occupational Plans. Applicants to BEBCE and the comparison group members were asked to state their immediate occupational plans. BEBCE students chose clerical and sales work most frequently. General comparison students and work experience comparison students chose a position as business manager most frequently. Twenty-seven (27) percent of BEBCE students indicated they planned to be higher executives, business managers or administrative personnel immediately after high school. This compares with 50 percent and 55 percent of general comparison and work experience comparison students respectively who selected these occupational levels. Table 16 describes students immediate occupational plans.

Table 16

Immediate Occupational Plans

Student Immediate Occupational Level	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
Higher Executives	1	3	7	17	3	15
Business Managers	2	7	11	26	6	30
Administrative Personnel	5	17	3	7	2	10
Clerical and Sales Workers	12	40	3	7	4	20
Skilled Manual Employees	5	17	10	24	1	5
Machine Operators	1	3	3	7	2	10
Unskilled Employees	0	0	0	0	0	0
Homemakers	0	0	0	0	0	0
Unemployed	0	0	0	0	0	0
Other	3	10	2	5	0	0
No Response	1	3	3	7	2	10
Total	30	100	42	100	20	100

j. Long-Range Occupational Plans. Students were also asked to state their long-range occupational plans. These were in the context of five years after completion of education. Thirty seven (37) percent of BEBCE students indicated they planned to be employed in higher level occupations five years after completion of schooling. Another 33 percent planned to be employed as clerical and sales workers. Fifty seven (57) percent of general comparison and 60 percent of work experience students planned to be employed at the three higher occupational levels. Only 5 percent of the general comparison and 15 percent of the work experience students planned to be employed as sales and clerical workers. No students planned to be homemakers. Long range occupational plans of students are presented in Table 17.

Table 17

Long Range Occupational Plans

5 Years Later Occupational Level	BEBCE		General Comparison		Work Experience Comparison	
	n	%	n	%	n	%
Higher Executives	2	7	10	24	4	20
Business Managers	4	13	8	19	6	30
Administrative Personnel	5	17	6	14	2	10
Clerical and Sales Workers	10	33	2	5	3	15
Skilled Manual Employees	3	10	8	19	1	5
Machine Operators	1	3	1	2	1	5
Unskilled Employees	0	0	0	0	0	0
Homemakers	0	0	0	0	0	0
Unemployed	0	0	0	0	0	0
Other	4	13	3	7	1	5
No Response	1	3	4	10	2	10
Other	30	99	42	100	20	100

k. Summary of Student Characteristics. In examining the distribution of demographic characteristics, the three groups are dissimilar in many more respects than they are similar. While there is some congruence among groups in terms of grade level, parental educational level, and to some extent race, all the other demographic variables show considerable dissimilarity. Major differences appear in variables related to sex of students, parental occupational level, post secondary plans and immediate and long range occupational plans of students.

4. Fairness of Student Selection

Although student selection was to be randomized in all groups, this goal was not realized in two of three groups. Selection of BEBCE students was biased as a result of soliciting students on the basis of ranking rather than through a randomized procedure. The selection of two advisory groups as representative of the senior class is not adequate for

evaluative purposes. The group created through randomization is the work experience comparison group.

Preparation of Student Learning Plans

Individual learning plans establish a method whereby students interact with program resources. These plans ideally should organize each student's activities and guide the impact of program experiences. Learning plans must be carefully constructed with an awareness of both student and resource factors. The objective of this process is to provide each student with a learning plan that is individualized and reflects student needs and interests.

Project staff share responsibility for developing individual student learning plans. Each learning manager is responsible for half of the students at that particular site. Planning of student learning is centralized with the student's learning manager.

In order to develop individualized student learning plans and activities, staff need information regarding student skills development and learning materials which may be appropriately adapted to meet student needs and interests.

Evaluation of this process provided for the review of student records to ensure that each student had a current learning plan and was engaging in the prescribed activities.

No formal records kept either by program staff or students exist which document the development of learning plans for each BEBCE student.

Implementation of Learning Activities

A BEBCE program with learning resources organized into individualized learning plans which reflect student needs and interests should be the result of successful implementation of the procedures reviewed in the preceding section. This section of the report examines the implementation of the BEBCE program. The major learning activities addressed are:

1. Career Explorations
2. Investigations
3. Life Competencies
4. Projects
5. Student Journals
6. Employer Seminars
7. Term Papers

Student progress in the seven required learning activity areas was monitored. Learning activities accomplished by BEBCE students are presented below.

1. Career Explorations

Three career explorations were required of all BEBCE students. Table 18 summarizes number of explorations completed by students.

Table 18

Career Explorations

Number of Career Explorations Completed	N	%
1	0	0
2	2	4
3*	23	74
4	5	22
5	0	0
6	0	0

*Number required by BEBCE.

All but two students completed at least three career explorations. Students on the average explored 3.1 careers.

Students used 29 community learning sites for the completion of 93 explorations. The School District of Philadelphia, The Defense Personnel Support Center and the Philadelphia Naval Shipyard accounted for almost half of the explorations. Table 19 presents a listing of exploration sites and the frequency with which they were utilized.

Table 19

Site Utilization for Explorations

Community Learning Site	# of explorations held at site	Percent
School District of Philadelphia		
JFK Center for Vocational Education	14	15.1
Other	8	8.6
Defense Personnel Support Center	10	10.8
Philadelphia Naval Shipyard	9	9.8
Eastern Airlines	7	7.6
Presbyterian University Medical Center	4	4.3
Sheraton Airport Inn	4	4.3
American Airlines	4	4.3
Shaiman, Boardman & Schermer	2	2.2
Philadelphia Department of Revenue	2	2.2
Hospital of the University of Pennsylvania	2	2.2
Jean Madeline, Inc.	2	2.2
Federal Aviation Administration	2	2.2
Globe Times Newspaper	2	2.2
Ground Services, Inc.	2	2.2
Scott Paper Inc.	2	2.2
District Attorney's Office	2	2.2
Marine Corps	2	2.2
WHYY TV	2	2.2
Children's Hospital of Philadelphia	1	1.0
Joseph Goane	1	1.0
Philadelphia International Airport	1	1.0
Neighborhood Revitalization Effort	1	1.0
Turino Caterers	1	1.0
Tinicum National Environmental Center	1	1.0
Louis Goldstein, Inc.	1	1.0
Lou Grimaldi	1	1.0
WRTI FM	1	1.0
Spanish Merchant's Association	1	1.0
City Hall (court stenographer)	1	1.0
TOTAL	93	100.0

2. Investigations

In addition to career explorations, students were required to complete two investigations at community sites. Table 20 presents investigations completed by students.

Table 20

Investigations

Number of Investigations Completed	N	%
1	12	40
2*	18	60

*Number required by BEBCE.

Almost two thirds of the students completed at least two investigations; the group average was 1.6.

Most investigations lasted two weeks; variation in length occurred because of time constraints, a local transit strike, and employer cooperation.

Students completed 48 investigations utilizing 21 community learning sites. The School District of Philadelphia, The Defense Personnel Support Center, and the Philadelphia Naval Shipyard accounted for half of the investigations. The John F. Kennedy Center for Vocational Education provides nearly 15 percent of all investigations. Table 21 presents a listing of investigation sites and the frequency with which they were utilized.

Table 21

Site Utilization for Investigations

Community Learning Site	# of investigations held @ site	percent
School District of Philadelphia		
JFK Center for Vocational Education	7	14.6
Other	4	8.3
Defense Personnel Support Center	7	14.6
Philadelphia Naval Shipyard	6	12.5
Eastern Airlines	3	6.3
KYW TV	2	4.1
Sheraton Airport Inn	2	4.1
American Airlines	2	4.1
Marine Corps	2	4.1
Presbyterian University Medical Center	1	2.1
Philadelphia Department of Revenue	1	2.1
Children's Hospital of Philadelphia	1	2.1
Hospital of the University of Pennsylvania	1	2.1
Joseph Goane	1	2.1
Federal Aviation Administration	1	2.1
Ground Services, Inc.	1	2.1
Turino Caterers	1	2.1
Scott Paper Co.	1	2.1
Louis Goldsmith, Inc.	1	2.1
The Spot	1	2.1
City Hall (court stenographer)	1	2.1
Neighborhood Revitilization Effort	1	2.1
TOTAL INVESTIGATIONS	48	100.1

3. Life Competencies

Documentation of life competencies relied heavily upon the examination of student records kept by project staff. Records were not always current, complete, or in many cases maintained. Based on evaluation feedback, a new record-keeping system was developed by May 25. This new record-keeping procedure used a series of index cards to maintain for each student a written record of work completed. These record-keeping procedures relied on students to record work they had previously completed during the program; appropriate staff then verified completion. As of June 1, program records were not current. Staff, however, completed this process and current records of actual student performance exist.

Students were required to be certified in five life competencies. Table 22 presents the number of life competencies completed by BEBCE students, as compiled from student records.

Table 22

Life Competencies Completed

Number of Life Skill Competencies Completed	N	%
1	0	0
2	0	0
3	0	0
4	0	0
5*	24	80
6	6	20

*Number required by BEBCE

All students completed life competency requirements. Twenty (20) percent of all students completed an additional competency. Students were certified on the average in 5.2 competencies.

All students were required to complete a personal history competency. Students were free to select their remaining competencies from the remaining fourteen offered them. The distribution of their choices is presented in Table 23.

Table 23

Life Competencies Chosen

Life Skill Competency	N	%
Auto Maintenance	6	20
Budget	5	17
Buying/Renting Home	1	3
Checking Account	25	83
Credit	2	7
Electoral Process	1	3
Emergencies	4	13
Employment	11	37
Government	0	0
Health and Leisure	8	27
Insurance	23	77
Legal Rights	2	7
Personal History*	30	100
Public Agencies	26	87
Taxes	12	40

*required by BEBCE

4. Projects.

Data collection problems described above were encountered in the evaluation of student projects as well. Students were required to complete one project. Number of projects completed by students are summarized in Table 24 below.

Table 24

Individual Student Projects

Individual Student Projects Completed	N	%
0	9	30
1*	18	60
2	3	10

*Number required by BEBCE

Seventy percent of students met program requirements. Fully 30 percent of students did not complete a project. An average of .8 projects were completed by BEBCE students.

Projects completed were generally based on career investigations; in most cases, projects consisted of numerous learning activities which students were to complete during their investigations. In these cases, tangible products (e.g., reports) were produced by students.

In nearly one third of career investigations, the project requirement was waived. Illustrations of this waiver follow: first, a student placed within University Hospital Department of Radiology was participating in an instructional X-ray technician program. Second, another student

worked in the community with the Neighborhood Revitalization Effort. Program staff felt that it would be difficult and inappropriate for students to produce actual or tangible projects since they were not engaged in typical career investigation activities. Staff also suggested that projects imposed by them could interfere with activities to which students were already committed.

5. Student Journals.

Students were expected to maintain student journals during the course of the program year. Although staff indicated that journals were used consistently by students throughout the program, it appears that staff did not consistently monitor this activity. One learning manager stated that journals were more closely supervised in the early months of program operation. When group English classes were implemented, time was often provided at the end of class for students to write in their journals. As students began spending more time away from the learning center on career explorations and investigations, interaction with learning managers decreased significantly. Staff supervision of journals as well as staff response was then provided upon an irregular and infrequent basis.

6. Employer Seminars.

Student participation in employer seminars was required for all students not participating in program activities at community sites. Two general types of seminars were offered; those relating to a particular career and those focused upon the personal growth of students. Tables 25 and 26 respectively list the titles of these types of seminars and the names of speakers.

Table 25

Employer Seminars Related to Specific Occupations

Speaker	Occupational Area
Mssrs. Hess and Gordon	oil industry
Mr. Howard Codney	avaiation
Mr. Bruce Lambrecht	banking
Mr. Lou Grimaldi	cosmetology
Ms. Paulette Hall	cosmetology
Ms. Terry Grooms	copying/duplicating
Mr. Bishop	business machines
film	'Factory Blue Collar'
film	' Philadelphia with Love'

Table 26

Employer Seminars Related to Personal Growth

Speaker	Area of Personal Growth
Representative from Public Library	research skills
Mr. George Hatten	human relations
Ms. Millicent Hartsfeld	job interviewing
Ms. Margie Lloyd	realistic job choices
film	women's consciousness
Ms. Roz Sanders	college counseling
film	"Career is Calling"
Mr. Walter Carpenter	decision-making
Mr. Frank Killam	"Talented Student" Program, Germantown High School
film	men's consciousness

In addition to these seminars, one field trip to Gulf Oil facilities was conducted.

7. Term Papers

All thirty (30) students successfully completed this requirement. Learning managers indicated that they assisted students in this regard. Assistance consisted of locating material resources; organization and grammar review exercises and tutoring; and suggestions and comments on individual writing style.

Summary

During the first year of program operation five majo- activities of BEBCE were evaluated. Evaluation of these activities occurred by comparing actual implementation to that prescribed by BEBCE in program documents. All activities but avoidance of sex-role stereotyping are addressed in this chapter.

The BEBCE staff established requirements for all students for seven learning activities. A learning center was established and a wide array of community resources were made available to students. These resources matched student career choices. Students met program requirements for career explorations, life competencies, employer seminars and term papers.

Problems were encountered with the selection of students, individualization of instruction and failure of students to meet program requirements related to investigations. Staff ceased to monitor student journals.

III. PROGRAM OUTCOMES

III. BEBCE OUTCOMES

The BEBCE program impacts upon four populations: Students, staff, community instructors, and parents. Student outcomes are considered primary; other outcomes are secondary. This consideration is reflected in the organization of this chapter. Student outcomes are addressed in the first section. Participant perceived effects follow.

Student Outcomes

This section addresses the impact of the BEBCE program on participating students. The evaluation design for assessing student outcomes was based on the premise that a non-equivalent groups quasi-experimental design with program and comparison students could be established and maintained. This section of the report considers the degree to which the premise of a quasi-experimental design has been met.

Specific issues addressed include the establishment of student samples, the maintenance of student samples, characteristics of the final student groups, data representativeness, instruments, evaluation design, hypotheses, analysis plan, and hypothesis testing.

Establishment of Student Samples

During the latter half of the 1976-1977 academic year, twelfth grade students from Bartram High School were chosen to participate in BEBCE by both program and high school staff. Two comparison groups were formed. The first comparison group was drawn from two intact Bartram High School

advisory groups. The second comparison group was randomly selected from students participating in a Work Experience program at Bartram High School. The groups were designated as follows:

(1) BEBCE - program group

(2) General Comparison - comparison group drawn from two intact homerooms

(3) Work Experience Comparison - randomly selected Work Experience group

Initial sizes for the program and the two control groups respectively were 30, 42, and 40.

Maintenance of Student Samples

Student attrition from educational programs is a phenomenon which presents long-recognized difficulties to all program facets. Attrition pertains not only to students who did not remain in BEBCE for program year duration, but also to the loss of comparison students to the evaluation process. Table 27 presents group sizes at the beginning and end of program year.

Table 27

Initial and Final Group Sizes

Group	Initial Size	Final Size	Attrition
BEBCE	30	30	—
General Comparison	42	6	85.71%
Work Experience Comparison	40	0	100.00%

All BEBCE students remained in the program for the entire program year. Comparison groups were not maintained by BEBCE. No Work Experience Comparison students and only six (6) General Comparison students were available for posttesting session.

Data Representativeness

Data representativeness analyses determines the comparability of final data pairs with the original samples for the evaluation groups. This procedure assesses the integrity of the final groups in terms of the original non-equivalent group quasi-experimental design. Two factors which typically affect the assurances provided by a design are student attrition during the program year and student absence or unavailability for testing. Both factors reduce the number of complete data pairs available for analyses, thus potentially introducing biases into the original distributed array of student characteristics.

As no attrition occurred with BEBCE students, the program group is intact. Attrition was 86 percent for the General Comparison group and 100 percent for the Work Experience Group; neither comparison group is intact. This, in essence, prohibits use of the originally planned non-equivalent group quasi-experimental design.

Instruments

The School District of Philadelphia's BEBCE program identified three general areas in which to examine program effects. These areas are: (1) career development, (2) life skills, and (3) basic skills. Additional

information regarding basic demographic information on students was also necessary. Instruments selected to address each area are discussed briefly below.

1. Student Demographic Data.

A Student Demographic Data Questionnaire (SDQ) was selected to gather information concerning the demographic characteristics of student applicants. The SDQ collects information such as student name, address, telephone, birthplace, sex, grade level, and race. In addition, the SDQ solicits grade average, attendance rate, plans after completing high school, reason for applying to BEBCE, parental occupational and educational levels as well as short-term and long-term occupational plans of students. A copy of the SDQ is presented in Appendix B.

2. Career Development.

Career development is a central area of impact for the BEBCE program. Several instruments were selected to assess student outcomes in this key area.

Three subtests of Assessment of Career Development (ACD) were selected to assess career development. They were Occupational Characteristics, Occupational Preparation Requirements, and Career Planning Knowledge. These subtests were designed to measure knowledge of career and occupational facts and sequences.

The Student Attitude Survey (SAS) is an attitudinal survey which has four scales. Career development is assessed by student responses to one scale, Career Attitude Scale. The Career Attitude Scale is a 22 item

Likert-type scale which assesses student attitude toward career knowledge and career planning.

3. Life Skills.

The assessment of life skills by direct behavioral observation of program and comparison students was not possible. Attitudinal measures were selected as indirect or surrogate measures of behavioral change and competency.

Assessment of life skills development is provided by three scales from the Student Attitude Survey. One scale, Attitude toward Learning Environments, assesses student attitudes toward education in general, attitude toward school curriculum, attitude toward school resources, and attitude toward school counseling. This scale is comprised of 26 Likert-type items. The second scale, Acceptance of Self, is a 19 Likert-type item scale which yields a single self-concept score. The final scale, Acceptance of Others, contains 13 Likert-type items related to students' acceptance of others. The SAS is presented in Appendix B.

4. Basic Skills.

The California Achievement Test (CAT) assesses basic academic skill proficiency. It is a standardized instrument with five levels having two alternate forms each. Level 5, appropriate for secondary students, was used. Specific subtests used were Reading Comprehension and Arithmetic Computations.

Evaluation Design

The evaluation has been designed to examine student outcomes. Student outcomes are examined in the areas of Career Development, Life Skills, and Basic Skills.

The original evaluation design planned to test the impacts of BEBCE using a non-equivalent groups quasi-experimental design. Because both comparison groups were not maintained, the original evaluation design was revised to allow for testing of program effects. Comparison group data for career development and life skills measures were obtained in two ways: (1) performance of students enrolled in traditional programs from an Eastern urban high school and (2) use of normative data proivded by test publishers. Comparison group data was not available from the publisher of the CAT since test-retest correlations for the instrument are unknown.

A pretest-posttest design was used to assess student outcomes. The pretest administration of the test package except for the CAT was conducted in January 1977 by RBS. CATs were administered to students by School District of Philadelphia staff in February 1977. All instruments were administered under conditions prescribed by administration manuals.

Posttesting was conducted in June 1977. All instruments were administered by RBS personnel.

Instruments and their time of administration are indicated in the following diagram.

	Time of Administration	
	Pretest	Posttest
1. Student Demographic Data Questionnaire (SDQ)	X	
2. Assessment of Career Development (ACD)	X	X
3. Student Attitude Survey (SAS)	X	X
4. California Achievement Test (CAT)	X	X

The SAS was scored by machine using an RBS-developed scoring package. The ACD was scored by the test publishers. CAT was manually scored by RBS statistical clerks. A random sample of student scores were verified to insure the accuracy of the scoring process.

Hypotheses

Three areas were selected for formal hypothesis testing of student outcomes of the BEBCE program: Career Development, Life Skills, and Basic Skills. Hypotheses were generated within each of these areas. Hypotheses are of two types: Within group hypotheses and Between group or comparative hypotheses. The within group set of hypotheses tests BEBCE program student growth when compared to the presenting level of achievement in each area. The between group set of hypotheses compare the growth of the BEBCE program students with that of the substitute comparison groups. Although only the comparative hypotheses were indicated in the evaluation plan, both are listed and tested in the interests of greater precision for the report. Specific hypotheses for each area are listed below.

A. Career Development

1. BEBCE students will acquire increased mastery in career knowledge.

2. BEBCE students will acquire significantly greater mastery in career knowledge than comparison students in traditional high school programs.

3. BEBCE students will acquire increased self awareness of careers.

4. BEBCE students will acquire significantly greater self awareness of careers than comparison students in the traditional high school programs.

B. Life Skills

5. BEBCE students will acquire increased positive attitudes toward learning environments.

6. BEBCE students will develop significantly more positive attitudes toward learning environments than comparison students in traditional high school programs.

7. BEBCE students will acquire increased positive attitudes toward self.

8. BEBCE students will acquire significantly more positive attitudes toward self than comparison students in traditional high school programs.

9. BEBCE students will acquire increased positive attitudes toward others.

10. BEBCE students will acquire significantly more positive attitudes toward others than comparison students in traditional high school programs.

C. Basic Skills

11. BEBCE students will acquire increased mastery in reading skills.

12. BEBCE students will acquire reading skills equal to those acquired by comparison students in traditional high school programs.

13. BEBCE students will acquire increased mastery in mathematics skills.

14. BEBCE students will acquire mastery in mathematics skills equal to that acquired by comparison students in traditional high school programs.

The relationship between instruments and specific hypotheses is indicated below.

Career Development Skills

Hypothesis 1. (Career knowledge within BEBCE group) - ACD: Occupational Characteristics and ACD: Occupational Requirements subtests and SAS: Career Attitude Scale

Hypothesis 2: (Career knowledge between BEBCE and comparison groups) - Same as Hypothesis 1.

Hypothesis 3: (Self awareness of careers within BEBCE group) - ACD: Career Planning Knowledge subtest.

Hypothesis 4: (Self awareness and careers between BEBCE and comparison groups) - Same as Hypothesis 3.

Life Skills

Hypothesis 5: (Attitude toward learning environments within BEBCE group) - SAS: Attitude Toward Learning Environments scale.

Hypothesis 6: (Attitude within learning environments between BEBCE and comparison groups) - Same as Hypothesis 5.

Hypothesis 7: (Attitude toward self within BEBCE group) SAS: Acceptance of Self scale.

Hypothesis 8: (Attitude toward self between BEBCE and comparison groups) - Same as Hypothesis 7.

Hypothesis 9: (Attitude toward others within BEBCE group) - SAS: Acceptance of Others scale.

Hypothesis 10: (Attitude toward others between BEBCE and comparison groups) - Same as Hypothesis 9.

Basic Skills

Hypothesis 11: (Reading skills within BEBCE groups) - CAT: Reading Comprehension subtest.

Hypothesis 12: (Reading skills between BEBCE and comparison groups) - not tested.

Hypothesis 13: (Arithmetic skills within BEBCE groups)
CAT: Arithmetic Computations

Hypothesis 14: (Arithmetic skills between BEBCE and comparison groups) - not tested.

Analysis Plan

The analysis plan provides for the testing of all but two hypotheses of student effects. Within group hypotheses are to be tested using the presenting levels of the BEBCE groups as the reference point. Between group hypotheses compare the growth of the BEBCE groups to that of the comparison groups.

For hypothesized effects within the BEBCE groups (Hypotheses 1, 3, 5, 7, 9, 11, and 13), the scheduled analyses were correlated "t" tests for paired data using matched pretest and posttest scores.

For hypothesized effects between the BEBCE and comparison groups (Hypotheses 2, 4, 6, 8, and 10), the scheduled analyses were "t" tests for independent samples using the Regression Projection Model (Horst, Tallmadge & Wood, 1975). This procedure uses a regression line calculated from the pretest-posttest distribution of the comparison group to estimate what the BEBCE posttest level of achievement would have been under a "no treatment" condition. All tests of significance should be one-tailed since directionality of outcome is indicated in the hypotheses. The .10 level of significance was selected for all hypothesis testing.

Hypothesis Testing

The series of hypotheses of student outcomes were tested following the analysis plan presented in the previous section. The results of the hypothesis testing are presented below.

1. Career Development

Hypothesis 1. BEBCE students will acquire increased mastery in career knowledge.

This hypothesis was tested by comparing the pretest and posttest scores of the BEBCE groups on the ACD: Occupational Characteristics and ACD: Occupational Preparation Requirements subtests and the SAS: Career Attitude scale. Each of the comparisons was conducted by a correlated "t" test procedure performed on pretest-posttest data pairs for BEBCE students. Table 28 presents all three comparisons.

Table 28

BEBCE Students

Within Group Career Knowledge Comparisons

Test Measure	N	Pre	Post	t
ACD: Occupational Characteristics	28	36.43	31.00	—
ACD: Occupational Preparation Requirements	28	11.25	10.14	—
SAS: Career Attitude Scale	17	4.22	4.08	—

The analyses offer no support for the hypothesis that BEBCE students acquired increased mastery in career knowledge.

Hypothesis 2. BEBCE students will acquire significantly greater mastery in career knowledge than comparison students in traditional high school programs.

This hypothesis was tested by performing comparisons of the posttest performance of the BEBCE group on the ACD: Occupational Characteristics and the ACD: Occupational Preparation Requirements subtests and the SAS: Career Attitude scale with performance that was projected from the comparison group pretest-posttest performance on the same measures. Comparison group data were obtained for the ACD measures from normative data provided by the test publisher and for the SAS scale from test results of students enrolled in a traditional Eastern urban high school program of study. The results of these regression projection comparisons are presented in Table 29.

Table 29

Between Group Career Knowledge Comparisons

Measure	Group	N	Pre	Post	Projected	t
ACD: Occupational Characteristics	E C	28 340	36.43 38.50	31.00 38.80	37.41	—
ACD: Occupational Preparation Requirements	E C	28 340	11.25 12.10	10.14 12.20	11.81	—
SAS: Career Attitude Scale	E C	17 28	4.22 3.68	4.08 3.75	4.06	<1

The comparative analyses offer no support for the hypothesis that BEBCE students gained significantly greater mastery in career knowledge than their comparison counterparts in traditional high school programs.

Hypothesis 3. BEBCE students will acquire increased self awareness of careers.

This hypothesis was tested by conducting correlated "t" tests on the pretest-posttest data pairs of the BEBCE groups' performance on the ACD: Career Planning Knowledge subtest. Table 30 presents these analyses.

Table 30

BEBCE Students

ACD: Career Planning Knowledge

N	Pre	Post	t
28	26.00	21.71	—

The analyses do not support the hypothesis that BEBCE students acquired increased self awareness of careers.

Hypothesis 4. BEBCE students will acquire significantly greater self awareness of careers than comparison students in the traditional high school programs.

This hypothesis was tested by conducting comparisons on the posttest comparisons of the BEBCE groups on the ACD: Career Planning Knowledge subtest with performance projected from the comparison groups' pretest-posttest performance on the same measure. Comparison group data were obtained from normative data provided by the test publisher. Table 30 presents these analyses.

Table 31

ACD: Career Planning Knowledge

Group	N	Pre	Post	Projected	t
E	28	26.00	21.71	26.17	—
C	340	27.90	27.50		

* control data is normative and provided by test publisher

The analyses do not support the hypothesis that BEBCE students gained significantly greater self awareness of careers than their comparison counterparts.

2. Life Skills

Hypothesis 5. BEBCE students will acquire increased positive attitudes toward learning environments.

This hypothesis was tested by comparing the pretest and posttest scores of the BEBCE group on the SAS: Attitude Toward Learning Environments scale. This comparison was conducted by a correlated "t" test procedure performed on pretest-posttest data pairs for BEBCE students. Table 32 presents the comparison results.

Table 32

BEBCE Students

SAS: Attitude Toward Learning Environments

N	Pre	Post	t
17	3.43	3.70	1.84

critical value for one-tailed "t" test, df $\geq$ 16, = 1.337.

The hypothesis was supported; BEBCE students acquired increased positive attitudes toward learning environments.

Hypothesis 6. BEBCE students will develop significantly more positive attitudes toward learning environments than comparison students in traditional high school programs.

This hypothesis was tested by performing comparisons of the posttest performance of the BEBCE groups on the SAS: Attitude Toward Learning Environments scale with performance that was projected from the comparison group pretest-posttest performance on the same measure. Comparison group data were obtained from test results of students enrolled in a traditional Eastern urban high school program of study. The results of the regression projection comparisons are presented in Table 33.

Table 33

SAS: Attitude Toward Learning Environments

Group	N	Pre	Post	Projected	t
E	17	3.43	3.70	3.42	1.50
C	27	3.52	3.48		

critical value for one-tailed "t" test,
df >40 = 1.303.

This hypothesis was supported; BEBCE students did acquire significantly more positive attitudes toward learning environments than comparison students.

Hypothesis 7. BEBCE students will acquire increased positive attitudes toward self.

This hypothesis was tested by conducting a correlated "t" test procedure comparing pretest-posttest performance of BEBCE students on the SAS: Acceptance of Self scale. Results of these comparisons are presented in Table 34.

Table 34

BEBCE Students

SAS: Acceptance of Self

N	Pre	Post	t
17	3.88	3.86	-

Results of the analyses indicated no significant increase in positive attitude toward self for BEBCE students.

Hypothesis 8. BEBCE students will acquire significantly more positive attitudes toward self than comparison students in traditional high school programs.

This hypothesis was tested by performing comparisons of the posttest performance of the BEBCE groups on the SAS: Acceptance of Self scale with performance that was projected from the comparison group pretest-posttest performance on the same measure. Comparison group data were obtained from test results of students enrolled in a traditional Eastern urban high school program of study. Table 35 summarizes the results of the regression projection comparisons.

Table 35

SAS: Acceptance of Self

Group	N	Pre	Post	Projected	t
E	17	3.88	3.86	3.93	-
C	28	3.57	3.73		

This hypothesis was not confirmed; BEBCE students did not acquire more positive acceptance of self than comparison students.

Hypothesis 5. BEBCE students will acquire increased positive attitudes toward others.

This hypothesis was tested by comparing pretest-posttest data pairs for BEBCE students on the SAS: Acceptance of Others scale by conducting correlated "t" test analyses. The results of these analyses are presented in Table 36.

Table 36

BEBCE Students

SAS: Acceptance of Others

N	Pre	Post	t
17	3.74	3.67	-

Results of these analyses indicated no support for the hypothesis; BEBCE students did not acquire increased positive acceptance of others.

Hypothesis 10. BEBCE students will acquire significantly more positive attitudes toward others than comparison students in traditional high school programs.

This hypothesis was tested by comparing posttest performance of the BEBCE groups on the SAS: Acceptance of Others scale with performance that was projected from the comparison groups pretest-posttest performance on the same measures. Comparison group data were obtained from test results of students enrolled in a traditional Eastern urban high school program of study. Table 37 presents the results of the regression projection comparisons.

Table 37

SAS: Acceptance of Others

Group	N	Pre	Post	Projected	t
E	17	3.74	3.67	3.34	1.42
C	26	3.37	3.24		

Critical value for one-tailed "t" test, df > 40 = 1.303

The analyses offer support for this hypothesis. BEBCE students display more positive attitude toward others than comparison students in regular high school programs. This effect is the result of the experimental group declining less on the posttest than the comparison group rather than an increase in score of the experimental group from pre- to posttesting.

3. Basic Skills

Hypothesis 11. BEBCE students will acquire increased mastery in reading skills.

This hypothesis was tested by conducting correlated "t" test procedures on BEBCE pretest-posttest scores on the CAT: Reading Comprehension subtest. The results of these analyses are presented in Table 38.

Table 38

BEBCE Students
CAT: Reading Comprehension

N	Pre	Post	t
27	565.81	555.15	-

This hypothesis was not confirmed. BEBCE students did not acquire increased mastery in reading skills.

Hypothesis 12. BEBCE students will acquire reading skills equal to those acquired by comparison students in traditional high school programs.

This hypothesis could not be tested because of 1) unavailability of test-retest correlations for normative groups from the test publisher and 2) the failure of BEBCE to maintain comparison groups.

Hypothesis 13. BEBCE students will acquire increased mastery in mathematics skills.

This hypothesis was tested by comparing the pretest and posttest scores of the BEBCE group on the CAT: Arithmetic Computations subtest by conducting a correlated "t" test procedure on pretest-posttest data pairs. Table 39 presents the comparisons for CAT: Arithmetic Computations.

Table 39

BEBCE Students

CAT: Arithmetic Computations

N	Pre	Post	t
25	513.56	505.56	-

This hypothesis was not confirmed. No significant increase in mastery in mathematics skills was found for BEBCE students.

Hypothesis 14. BEBCE students will acquire mastery in mathematics skills equal to that acquired by comparison students in traditional high school programs.

This hypothesis could not be tested because of 1) the unavailability of test-retest correlations for normative groups from the test publisher and 2) the failure of BEBCE to maintain comparison groups.

Participant Perceived Effects

This section addresses the impact of the BEBCE program on staff, community instructors, and parents. The evaluation design for assessing participant perceived effects provides for participants to be surveyed at year end in order to determine their perceptions of BEBCE. Specific issues addressed in this section include brief descriptions of instruments for assessing participant perceptions, procedures employed for obtaining participant perceptions, and results obtained.

Instruments

The following instruments were selected for use in this part of the evaluation design:

1. Staff Opinion Survey
2. Community Instructor Opinion Survey
3. Parent Opinion Survey

Each is described in more detail below.

The Staff Opinion Survey contains 20 items incorporating a five point interval scale and three open-ended items. The items are designed to assess opinions towards various program elements, program benefits, and the career education program compared to regular classroom offerings.

The Community Instructor Survey assesses opinions toward various program elements, program benefits, and the program relative to standard curricular offerings. The instrument contains 14 items incorporating a five-point interval scale and two open-ended items.

Parent opinion toward various program elements, program benefits, and the program relative to standard curricular offerings is assessed by the Parent Opinion Survey. This instrument contains 13 items incorporating a five-point interval scale and two open-ended items.

Survey Procedures

Different survey procedures were used for staff than for community instructors and parents. In the case of staff, surveys were distributed

during the school day and returned to RBS by mail. Parents and community instructors were mailed surveys which could be returned by mail directly to RBS.

Results

Perceptions of each group surveyed are summarized below.

1. Staff Perceptions.

All five (5) staff members returned completed surveys. Staff were asked to rate achievement of program goals and growth in career awareness along with school and community support, facilities, and staff training. Table 40 summarizes staff perceptions.

All staff felt that students gain from program participation and learn more about careers in BEBCE than in regular school programs. All staff members expressed concern about the possible harm done to other academic areas of the student program. Overall ratings by staff members were positive. In open-ended comments, the staff pointed positively to increased student responsibility and independence in directing his/her own learning.

2. Community Instructor Perceptions.

Surveys were returned by nearly half of community instructors. Topics covered in community surveys included achievement of program goals, community/employer reaction to BEBCE, and organization of program. Community instructor perceptions are summarized in Table 41.

Table 40

Staff Perceptions

Question	Average Response
Do you think students enjoy participating in the Career Education Program?	4.80
Would you say the Career Education Program helps students to form career plans?	4.80
Would you say that students learn a lot while attending the Career Education Program?	4.60
Do you think that students generally gain from their experiences in the Career Education Program?	5.00
Do you think that students are harmed in other academic areas as a result of being out-of-school for part of their educational program?	1.60
Do you think that you have been adequately trained to perform your role in the Career Education Program?	4.40
Do you think that the facilities at your school are adequate to implement the Career Education Program?	3.40
In general, has your school faculty demonstrated positive support toward the Career Education Program?	4.60
In general, has your school administration demonstrated positive support toward the Career Education Program?	4.80
In general, has your community demonstrated positive support toward the Career Education Program?	4.60
Would you recommend that your school continue its implementation of the Career Education Program?	5.00
How would you rate the overall conceptualization of the Career Education Program?	4.60
How would you rate the quality of the materials you have used in the Career Education Program?	3.80
How would you rate the community component of the Program at your School?	4.40
How would you rate the Career Guidance component at your school?	4.20
How would you rate the Basic Skills component of the Career Education Program?	4.00
How would you rate the overall impact of the Career Education Program at your school?	4.60
In comparison with regular school programs, how much opportunity does the Career Education Program provide students for learning about occupations?	5.00
In comparison with regular school programs, how much opportunity does the Career Education Program provide for students' general learning?	4.00
In comparison with regular school programs how motivated to learn do you think students are in the Career Education Program?	5.00

Average responses can range from a low of 1.0 to a high of 5.0.

Table 41

Community Instructor Perceptions

Question	Average Response
Do you think students enjoy participating in the Career Education Program?	4.48
Would you say the Career Education Program helps students to form career plans?	4.00
Would you say that students learn a lot while attending the Career Education Program?	4.03
Do you think that students generally gain from their experiences in the Career Education Program?	4.31
On the whole, would you say that your organization gains by participation in the Career Education Program?	3.55
Would you recommend to other organizations or individuals that they become involved in a Career Education Program?	4.38
Does your organization plan to continue its involvement with the Career Education Program?	4.14
How well organized and coordinated do you think the the Career Education Program has been?	4.07
How would you rate the general quality of the Career Education Program staff with whom you've had contact?	4.52
How would you rate the impact of the Career Education Program on your organization?	3.57
In comparison with regular school programs, how much opportunity does the Career Education Program provide students for learning about occupations?	4.45
In comparison with regular school programs, how much opportunity does the Career Education Program provide for students' general learning	4.00
In comparison with regular school programs, how motivated to learn do you think students are in the Career Education Program?	4.03

Average responses can range from a low of 1.0 to a high of 5.0.

In general, community instructors rated all program aspects positively. Community instructors rated program staff highest. Other high rated items were student enjoyment of program and greater comparative opportunity for students to learn about careers. Some responding community instructors did not feel that their organization gained by participating in BEBCE.

3. Parent Perceptions.

Twenty (20) percent of BEBCE parents returned mailed surveys. Parents were asked to rate achievement of program goals, organization and staff, and comparisons of BEBCE to regular high school programs. Their responses are summarized in Table 42.

Ratings of parents were positive. Parents thought that their children had enjoyed participating in BEBCE and had learned more about careers in BEBCE than in regular high school programs. Parents in general, seemed positive about participation of their child in BEBCE.

4. Summary.

In general, program participants were pleased with the first year of program operation. Most respondents felt that students had enjoyed participation in BEBCE and had grown in their career development. A few in each of the three groups expressed concern over basic skill development. Many felt that students had also grown in responsibility and maturity.

Table 42

Parent Perceptions

Question	Average Response
Do you think your child has enjoyed participating in the Career Education Program?	4.83
Have you received enough information about your child's progress in the Career Education Program	4.00
Would you say the Career Education Program has helped your child to form career plans?	4.83
Would you say that your child has learned a lot while attending the Career Education Program?	4.67
If you had it to do over again, would you want to have your child participate in the Career Education Program?	4.83
How well organized and coordinated do you think the Career Education Program has been?	4.00
How would you rate the general quality of the Career Education Program Staff?	4.17
How would you rate the personal counseling available in the Career Education Program?	3.83
How would you rate the overall quality of the Career Education Program activities?	4.50
How would you rate the general quality of the Career Education Program community resources your child has been involved in?	4.50
In comparison with regular school programs, how much opportunity has the Career Education Program provided your child for learning about occupations?	4.83
In comparison with regular school programs, how much opportunity has the Career Education Program provided for your child's general learning?	4.17
In comparison with past experiences in regular school programs, how motivated to learn has your child been in the Career Education Program?	4.33

Average responses can range from a low of 1.0 to a high of 5.0.

Summary of BEBCE Outcomes

The evaluation has been designed to examine two areas of BEBCE program impact: Student outcomes and participant perceived effects. Student outcomes were examined in the areas of Career Development, Life Skills, and Basic Skills. Participant perceived effects were examined for staff, community instructors, and parents. Evaluation results of program impact in both areas are summarized below.

Student Outcomes

The impacts of BEBCE were tested within the context of a non-equivalent groups quasi-experimental design. Student outcomes were examined by comparing within group growth of BEBCE students and between group growth (BEBCE vs. comparison) in all three skill areas. Results of these analyses are presented in Table 43 and summarized below.

1. Career Development

Student growth in this area was examined in terms of career knowledge and self awareness of career.

BEBCE students did not acquire significant increases in career knowledge or self awareness of careers. When compared to comparison students, BEBCE students at that high school did not acquire more career knowledge or self awareness of careers.

2. Life Skills

Student growth in life skills was assessed by attitudinal measures toward learning environments, self, and others.

Table 43

Summary of Student Outcome Results

Hypothesis	Within	Between
Career Development		
Career Knowledge		
1. Attitude	—	—
2. Job Knowledge	—	—
Self Awareness of Careers	—	—
Life Skills		
Attitude toward Learning Environments	yes	yes
Attitude toward Self	—	—
Attitude toward Others	—	yes
Basic Skills		
Reading	—	*
Mathematics	—	*

— Not confirmed

* Not tested

Increased positive attitudes were acquired by BEBCE students only toward learning environments. In comparison to comparison group students, BEBCE students acquired more positive attitudes both toward learning environments and others. No increase in positive attitude toward self was found for either within group or between group comparisons.

3. Basic Skills

Student growth in reading and mathematics skills was examined in terms of basic skill development. Within group comparisons provided for hypothesis testing of increased mastery of reading or mathematics skills of BEBCE students.

BEBCE students did not acquire increased mastery in reading or mathematics skills. Control or comparison group data were not available; consequently no between group analyses were conducted.

4. Summary

Student outcomes were examined in three areas, career development, life skills, and basic skills. BEBCE students did not demonstrate significant growth in either career development measure, career knowledge or self awareness of careers. In terms of growth in life skills, BEBCE students acquired more positive attitudes toward learning environments and in comparison to comparison group students, developed more positive attitudes toward learning environments and others. No increased mastery in either reading or mathematic basic skills was found.

Participant Perceived Effects

Staff, community instructors, and parents were surveyed at year end in order to obtain their perceptions of program impact. In general, all three groups rated program effects positively. All groups thought students enjoyed participating in BEBCE and developed more career awareness than students enrolled in traditional high school programs. Staff expressed concern over basic skills development of students. All groups noted increased student maturity and responsibility in directing her/his own learning.

IV. VOCATIONAL EDUCATION ACT - PART D CRITERIA

IV. VOCATIONAL EDUCATION ACT - PART D CRITERIA

This chapter addresses the criteria under which the competition for Vocational Education Act - Part D funding was conducted. The criteria were listed in the Federal Register of February 24, 1976 (Volume 41, Number 37, pages 8040-8044). Specific topics addressed in this chapter include the elimination of sex bias and sex role stereotyping, sex-fair guidance, counseling, placement and follow-up, third party evaluation, and process requirements for a Priority Area 1 program.

Elimination of Sex Bias and Sex-Role Stereotyping

The Federal Register listed three dimensions on which to consider the degree to which sex bias and sex-role stereotyping were eliminated from program implementation: (1) selection, development, alteration of curriculum, instructional materials, and evaluation instruments; (2) emphasis on the placement of young people in explorations and training opportunities without regard to traditional practices in vocational education and employment; and (3) identification of men and women in non-traditional work roles to work with students. A fourth dimension used to assess BEBCE conformity with this requirement is other program activities focused on the elimination of sex bias and sex-role stereotyping. Each is discused separately.

1. Selection, Development, Alteration of Curriculum, Instructional Materials, Evaluation Instruments.

Activities to assure the sex-fairness of curriculum, instructional materials, and evaluation instruments are reviewed individually.

a. Curriculum. Major curriculum areas of BEBCE include explorations, investigations, life competencies, and student projects. All but the last two are learning experiences which occur at community learning sites. They may be conducted at either community learning sites and/or within the learning center.

Community learning sites were recruited, selected, and developed without regard to the gender of the students which would use the sites. Examination of those Learning Site Analysis Forms available indicated no preference for students of either gender.

The actual use of community learning sites for explorations and investigations was monitored by BEBCE staff to ensure the sex-fairness of the program. No community instructor bias was observed or reported.

Student projects were developed to meet the individual needs and interests of students. These were not examined by the third-party evaluator for evidence of bias.

Certifiers of life competencies were recruited and selected without regard to the gender of the students which would use them. The same certifiers were used by students of both genders.

b. Instructional Materials. Instructional materials which are specific to the BEBCE program are the Learning Site Analysis Forms, guides for life competencies, and individual learning plans. Each is considered separately.

Learning Site Analysis Forms were completed for only 25 percent of community sites participating in the BEBCE program. Forms available were examined to assure that they were completed without regard to the gender of students. The examination by RBS personnel confirmed that the Learning Site Analysis forms were developed in a sex-fair fashion.

Guides and materials were prepared to assist students in the completion of life competencies. Guides presented the nature of the competency and directed students to certifiers for the competencies. These guides were prepared without regard to the gender of the student.

Individual learning plans for students are the last of the instructional materials specific to the BEBCE program. These were to be prepared to meet the needs and interests of each student. As no record of individual learning plans was available, it was impossible to assess the extent of bias toward members of either gender.

c. Evaluation Instruments. All instruments used for evaluation purposes have been reviewed by the RBS Institutional Review Board. All instruments have been judged to measure the phenomena they purport. The measures have been approved for use in the evaluation of career education programs.

2. Emphasis on the Placement of Young People in Explorations and Training Opportunities Without Regard to Traditional Practices in Vocational Education and Employment.

Community sites were recruited which would accept students of both genders. Four female students completed explorations and four completed investigations considered to be nontraditional. The program staff

suggested that a career exploration by a male student as a front desk clerk at a motor hotel be categorized as an exploration of a nontraditional career. As the number of males employed as front desk clerks is considerable, the position was not labelled as nontraditional by the third party evaluator.

Discussions with staff suggest they are not entirely comfortable in encouraging students to pursue nontraditional career explorations and investigations. They point to family and peer pressures against such placements. The issue of safety of female students and lack of future job prospects in certain nontraditional placements (i.e., construction) were also mentioned.

3. Identification of Men and Women in Nontraditional Work Roles to Work With Students.

BEBCE is required to recruit community instructors in nontraditional roles who will work with students both at school and community sites. Two female community instructors recruited by BEBCE were engaged in nontraditional careers. One of these women owned a retail clothing business while the other was a sergeant in the U. S. Marines. No male community instructors were engaged in nontraditional careers.

4. Other BEBCE Activities that Focused on the Elimination of Sex Bias and Sex-Role Stereotyping.

For BEBCE, this included employer seminars. Two employer seminars related to reduction of bias and stereotyping. Both used films, one addressing male consciousness and the other female consciousness.

Sex-Fair Guidance, Counseling, Placement, and Follow-up Services

Two dimensions are listed by the Federal Register on which to consider the degree to which sex-fair guidance, counseling, placement, and follow-up service were implemented: (1) development of process objectives and measureable student outcome objectives for sex-fair guidance and counseling, especially regarding career decision-making and (2) successful placement and follow-up of each and every young person leaving the participating schools. Each is discussed separately.

1. Sex-Fair Guidance, Counseling and Placement.

Activities to insure the sex-fairness of guidance, counseling, and placement include actual student placement, employer seminars, and analysis of student outcome measures by sex.

a. Actual Student Placement. Community sites for career explorations and investigations were recruited which would accept students of both gender. Staff stated they encouraged students to pursue nontraditional careers. Four female students completed explorations and four completed investigations that could be considered non-traditional. Careers sampled included photography, the U. S. Marines, law, and air traffic control. No male students engaged in nontraditional careers.

b. Employer Seminars. Two of the employer seminars addressed issues related to sex fair guidance and counseling. These seminars presented films on male and female consciousness.

c. Analysis of Student Outcome Measures. Student performance on career development and basic skills measures was analyzed by sex in order to compare BEBCE effects on male and female students. Insufficient numbers of male and female students completed instruments which would permit analyses by sex of student growth in life skills areas. Hypotheses were formulated which paralleled hypotheses used to compare BEBCE and comparison group performance. For example, it was hypothesized that male and female BEBCE students would acquire equal career knowledge. All hypotheses except one were tested by conducting "t" tests for independent samples using the Regression Projection Model. Results of these analyses are summarized for each skill area.

In the area of career development, male and female student performance was conpared on occupational characteristics, occupational preparation requirements and career knowledge. Results of these analyses are presented in Tables 44, 45, and 46.

Table 44

ACD: Occupational Characteristics

Student Group	Pre	Post	Projected	t
Male	36.82	28.18	33.33	—
Female	36.18	32.82		

Table 45

ACD: Occupational Preparation Requirements

Student Group	Pre	Post	Projected	t
Male Female	11.73 10.94	9.73 10.41	10.80	—

Table 46

ACD: Career Planning Knowledge

Student Group	Pre	Post	Projected	t
Male Female	27.91 24.76	21.64 22.35	23.86	—

As demonstrated in these tables, no significant differences were found between male and female students. In terms of career development, BEBCE impacted equally on students of both gender.

In order to compare impact of BEBCE on male and female student development in basic skills, performance on reading and mathematics indices were analyzed. Results of these comparisons are summarized in Tables 47 and 48.

Table 47

CAT: Reading Comprehension

Student Group	Pre	Post	Projected	t
Male Female	590.09 549.13	574.45 541.88	566.87	—

Table 48

CAT: Arithmetic Computations

Student Group	Pre	Post	Projected	t
Male Female	541.70 494.80	526.30 491.73	521.75	—

All comparisons indicated no difference between males and females in basic skill development. Results of these analyses generally indicated that staff interacted with students in a sex-fair manner in providing for growth in career development and basic skills.

2. Follow-Up.

The Federal Register requires the successful placement and follow-up of all students participating in EBCE. No formal follow-up procedures have been implemented.

Provision for Third Party Evaluation

The Federal Register of February 23, 1976 (Volume 41) calls for a third party objective evaluation focusing upon outcome and process measures. This report serves as documentation that the Philadelphia School District provided for the third party evaluation of BEBCE.

The commencement of the third party evaluation was delayed initially by (1) late award of the contract from U.S.O.E. to the School District of Philadelphia, (2) legal need for the School District to conduct a competition for the third party evaluation, and (3) need for board approval of the competition results. The second of these steps resulted in the

award of the third-party evaluation to Research for Better Schools, Inc. Board resolution of approval for RBS to conduct the third party evaluation occurred on February 14, 1977.

RBS performance was constrained at this time by a directive issued by the Executive Director of the Division of Career Education stating that no evaluation activities be implemented until RBS received a signed contract from the School District. This contract (see Appendix C) was not received by RBS until June 3, 1977.

In spite of this constraint, RBS monitored a pretest of the experimental and comparison groups in February and scheduled and rescheduled site observations in the hope that the contract would be forthcoming.

May, 1977 represented the last possible point at which the level of effort indicated in the contract could be performed. RBS decided it would commence performance of the workscope without receipt of a signed contract. The extended delay compromised the evaluation in the following ways:

1. It hampered monitoring of learning center activities because most students were in the community at the time on-site observation commenced.

2. It prevented impact of feedback from RBS to program staff regarding the maintenance of adequate records in time to result in adequate documentation of program activities.

3. It limited monitoring and feedback functions of RBS directed toward the learning activities of students in the community.

The contract let by the School District of Philadelphia was for a one year effort ending with the completion of the 1977 school year. The School District is making preparations for another competitive bidding for Year Two of program operation. The practice of funding program evaluation on a yearly basis necessarily limits the workscope to the potential detriment of the program. As an example, staff training sessions were conducted this summer without the benefit of evaluative feedback as a result of the policy decision to fund evaluation on a yearly basis.

Process Requirements for a Priority Area 1 Program

Priority Area 1 Programs are required to address the following dimensions as listed in the Federal Register: (1) award academic credit for successful completion of experience-based career education projects, (2) base the educational program on experiential learning, (3) insure that each student has an individualized learning plan, (4) integrate career development, life skills, and basic skills for overall learning plan, (5) establish learning center, (6) facilitate student transportation, and (7) obtain parental consent for students. Each of these is discussed individually.

1. Award Academic Credit.

Students enrolled in BEBCE were awarded academic credit for successful completion of experience-based career education projects. In general, award was given in academic subject areas in which students had been enrolled prior to BEBCE.

2. Base Educational Program on Experiential Learning.

Student educational programs were based on experiential learning that occurs within the high school's learning center and community sites. Students engaged in individually prescribed activities which foster growth in career development, life skills, and basic skills.

3. Insure Individualized Learning Plans.

No written record of individualized learning plans was available to document completion of this requirement.

4. Integrate Career Development, Life Skills and Basic Skills in Overall Learning Plan.

Without evidence of individual learning plans, the extent to which this requirement was met cannot be determined.

5. Establish Learning Center.

A learning center was established. As well as serving as home base for students and staff the learning center contained resource information for completing student learning activities.

6. Facilitate Student Transportation.

Transportation to community learning sites was provided by public transportation. Community learning sites were within easy access of bus and trolley lines. Staff arranged and implemented plans for student transportation during the six week transit strike.

7. Obtain Parental Consent.

Students were required to obtain parental consent as part of the recruitment process. Parental consent was obtained for both program participation and evaluation. Orientations were held for parents to present program goals, curriculum, and benefits and to answer parent questions.

V. SUMMARY AND RECOMMENDATIONS

V. SUMMARY AND RECOMMENDATIONS

The Building Experience Based Career Education (BEBCE) program was funded as a priority area 1 program under the Vocational Education Act, Part D, as an exemplary demonstration of the National Institute of Education's (NIE) Experience-Based Career Education (EBCE). BEBCE is a planned adaptation of the Northwest Regional Education Laboratory (NWREL) model of EBCE to the needs of students in Philadelphia.

The BEBCE program is being implemented with students from Bartram High School located in West Philadelphia. The learning center is housed separately at the Wolf Center in Southwest Philadelphia.

BEBCE provides for student growth in Career Development, Life Skills, and Basic Skills. Student growth is facilitated primarily through seven learning activities which are individualized to meet student needs and interests. Learning activities include career explorations, investigations, projects, life competencies, student journals, employer seminars, and term papers. Student learning activities occur both at school and at community learning sites.

BEBCE was constrained in initiating program operation as a result of a late notification of funding from U.S.O.E. and the concomitant mid-year start-up.

Program implementation was hampered as the result of a six week local transit strike which limited the time available for completion of investigations and forced employer relations specialists to spend much of the work day driving to and from community learning sites transporting and delivering students.

Evaluation activities were constrained due to a directive issued by the School District of Philadelphia which prevented the commencement of evaluation activities until a signed contract had been received by RBS.

This chapter summarizes major evaluation findings and makes recommendations for future program operation. Process objectives and program outcomes are addressed separately. Recommendations are then presented.

Process Objectives

Five process objectives were identified by BEBCE as crucial to program implementation. Evaluation of process objectives focused on documenting actual implementation of all but one process objective which is addressed as part of U.S.O.E. requirements.

1. Preparation of Learning Resources

Learning resources are central to program success. BEBCE uses learning center resources and community site resources. The extent to which resources were acquired and prepared for use to meet the needs of students was assessed.

a. Learning Center Resources. Learning center resources included facilities allotted for program operation and instructional materials for student learning. A learning center was established. Instructional materials for individual student projects and resource materials for life competencies have been acquired. BEBCE staff used NWREL EBCE instructional materials in developing student instructional programs.

b. Community Site Resources. Community learning sites recruited by BEBCE served two important functions: (1) career exploration sites and (2) investigation sites. Sixty eight (68) community sites were recruited by BEBCE. Community sites represented fields of airlines, business, computer operation, education, health care, law, media and trades. Too few Learning Site Analysis Forms were completed to indicate whether recruited community sites provided sufficient activities for student learning and growth of career knowledge.

BEBCE required each student to complete at least three career explorations, two investigations, and five life competencies. Sufficient numbers of community sites were recruited to meet career exploration and investigation program requirements.

In addition to meeting program requirements, sufficient numbers of community sites had to be recruited to meet students needs and career interests. BEBCE was able to recruit community sites for career explorations and investigations which matched student interest as measured at the beginning of the program.

2. Selection of Students.

The fair, unbiased selection of students was the objective of this process. A secondary objective was obtaining samples for both program implementation and evaluation purposes. The program plan provided for the unbiased recruitment of students. Screening of the recruited students according to criteria established by the school principal to create an applicant pool and random assignment of students in the pool to the BEBCE program. Random construction of general experience comparison groups was also to be undertaken.

Student recruitment for BEBCE was conducted by program staff by visits to all senior English classes. Program staff explained program goals, curriculum, and benefits.

Two hundred fifty (250) students applied for admission. Ranking yielded three groups of students considered by the principal as likely to succeed in the BEBCE program. Students were enrolled in the program on the basis of rank (beginning with the first-ranked group). Thirty (30) students were chosen in this manner to participate in the BEBCE program. A general comparison group was to be formed through a randomized procedure. The principal of the high school would not give permission and instead the administration offered two advisory groups, consisting of forty two (42) students, for comparison purposes. A work-experience comparison group was randomly selected from students enrolled in Bartrams' Work Experience Program rolls. Forty (40) students were selected.

Although student selection was to be randomized in all groups, this goal was not realized in two of the three groups formed. Selection of BEBCE students was biased as a result of soliciting students on the basis of ranking rather than through a randomized procedure. The selection of two advisory groups as representative of the senior class is not adequate for evaluative purposes. The only group created through randomization is the work experience comparison group.

3. Preparation of Student Learning Plans.

Each student was to be provided with a learning plan which was individualized, and reflected student needs and interests. Staff needed

information regarding student skill development and learning materials to develop individualized student learning plans. Instructional materials used have been those furnished as part of the NWREL EBCE materials. No formal records kept either by program staff or students exist which document the development of learning plans for BEBCE student.

4. Implementation of Learning Activities.

Seven major learning activities were required for students by BEBCE. Student progress in all seven was monitored. Learning activities accomplished by BEBCE students are presented in Table 49.

Table 49

Learning Activities Completed by BEBCE Students

Learning Activities	Mean Completed
Career Exploration (3 required)	3.1
Investigations (2 required)	1.6
Life Competencies (5 required)	5.2
Projects (1 required)	.8

All but one BEBCE student explored the required number of careers. Sixty (60) percent completed requirements for investigations. All students were certified in five life competencies. Projects were completed by 18 of 30. This requirement was waived for nine students. Student journals

were not monitored consistently by program staff so it is impossible to determine if this requirement was fulfilled. Students attended employer seminars that were convened. Finally all students completed a term paper.

All but one process objective was successfully met. Of major concern was individualization of instruction. Individual learning plans were not developed and indicate the staff lacked an understanding of the theory and implementation procedures for individualized instruction.

Program Outcomes

Two areas of BEBCE program impacts were examined: Student outcomes and participant perceived effects.

1. Student Outcomes.

Student outcomes were examined in the areas of Career Development, Life Skills, and Basic Skills. Impacts of BEBCE in these three areas were tested by comparing within group growth of BEBCE students and between group growth (BEBCE vs. norm-referenced group) for each skill area. This latter procedure was necessitated as a result of complete attrition of the work experience comparison group and 86 percent attrition of the general comparison group.

Table 50 summarizes outcome results.

Table 50

Summary of Student Outcome Results

Hypothesis	Within	Between
Career Development		
Career Knowledge		
1. Attitude	____	____
2. Job Knowledge	____	____
Self Awareness of Careers	____	____
Life Skills		
Attitude Toward Learning Environments	Yes	Yes
Attitude Toward Self	____	____
Attitude Toward Others	____	Yes
Basic Skills		
Reading	____	*
Mathematics	____	*

____ Not confirmed

* Not tested

a. Career Development. Student growth in this area was examined in terms of career knowledge and self awareness of careers.

BEBCE students did not acquire significant increases in career knowledge or self awareness of careers. When compared to comparison group students, BEBCE students did not acquire more career knowledge of self awareness of careers.

b. Life Skills. Student growth in life skills was assessed by attitudinal measures toward learning environments, self, and others.

Increased positive attitudes were acquired by BEBCE students only toward learning environments. Relative to comparison students, BEBCE students acquired more positive attitudes both toward learning environments and others. No increase in positive attitude toward self was found for either within group or between group comparisons.

c. Basic Skills. Student growth in reading and mathematics skills was examined in terms of basic skill development. Within group comparisons provided for hypothesis testing of increased mastery of reading or mathematics skills of BEBCE students.

BEBCE students did not acquire increased mastery in reading or mathematics skills. Control or comparison group data were not available, resulting from unavailability of test re-test correlations by the test publisher and failure of BEBCE to maintain comparison groups. Consequently no between group analyses were conducted.

2. Participant Perceived Effects.

Staff, community instructors, and parents were surveyed at year end in order to obtain their perceptions of program impact. All groups thought

students enjoyed participating in BEBCE and developed more career awareness than students in traditional high school programs. Staff expressed concern over basic skill development. All groups noted increased student maturity and responsibility in directing her/his own learning.

Vocational Education Act - Part D Criteria

Four requirements for U.S.O.E. Priorty Area 1 Programs were addressed by evaluation. They were (1) elimination of sex bias and sex-role stereotyping, (2) sex-fair guidance, counseling, placement, and follow-up, (3) third party evaluation, and (4) process requirements for these programs. Evaluation findings for each are addressed separately.

1. Elimination of Sex Bias and Sex-Role Stereotyping.

Several dimensions were considered in evaluating the elimination of sex bias and sex-role stereotyping. Curriculum, instructional materials, and evaluation instruments which were selected, developed, and revised were found to be sex-fair. Although all students were encouraged to explore nontraditional careers, only female students actually explored nontraditional careers. Few community instructors engaged in nontraditional work were recruited to serve as nontraditional role models. Consequently, all students lacked appropriate role models engaged in nontraditional work and male students, in particular, lacked sufficient sex-fair guidance and opportunities to explore nontraditional careers.

2. Sex-Fair Guidance, Counseling, Placement, and Follow-Up.

Evaluation of this requirement considered staff, actual student placement, employer seminars, analysis of student outcome measures by sex, and follow-up.

Community sites for career explorations and learning levels were recruited which accepted students of both gender. Students of both gender were encouraged by staff to explore nontraditional careers, although no male students actually completed nontraditional career explorations. Employer seminars addressed issues of male and female consciousness. Analyses of student outcome measures indicated that male and female student growth was generally equal in career development, life skills, and basic skills. Follow-up procedures were not formally implemented during the first year of program operation.

3. Provision for Third Party Evaluation.

Third party evaluation was provided for BEBCE by RBS. Evaluation measured student outcomes against stated program objectives as well as collected relevant process information. RBS performance was constrained by a school district directive that no evaluation activities be implemented until RBS received a signed contract. This was not received by RBS until June 3, 1977. In spite of this constraint, RBS conducted a pretest of the program and comparison groups.

In May, 1977, RBS decided to commence performance of the workscope without receipt of a signed contract. The delay seriously hampered monitoring and feedback functions of RBS.

4. Process Requirements for a Priority Area 1 Program.

Priority Area 1 Programs were required to address seven process dimensions. The evaluation considered each of these. BEBCE awarded academic credit for the successful completion of experience-based career

education projects. Students educational programs were based on experiential learning. No written records of individualized learning plans were available and without these the extent to which staff integrated career development, life skills, and basic skills cannot be determined. A learning center was established. BEBCE provided for student transportation to community learning sites. Parental consent was obtained for both program and evaluation participation.

Recommendations

Six recommendations are made for future years of program operation.

1. Continuous Evaluation of Program Implementation.

The contract let by the School District of Philadelphia was for a one year effort ending with the completion of the 1977 school year. The School District is making preparations for another competitive building for Year Two of program operation. The practice of funding program evaluation on a yearly basis necessarily limits the workscope to the potential detriment of the program. As an example, staff training sessions were conducted this summer without the benefit of evaluative feedback as a result of the policy decision to fund evaluation on a yearly basis. In order to issue continuous program evaluation, the School District should consider funding the next third party evaluation for the remaining two years of the demonstration period. It is also important that the contract which is entered into be executed in a timely fashion and delivered to both parties so as not to interfere with the performance of the evaluation.

2. Maintenance of Student Groups.

RBS assisted the School District of Philadelphia in the development of a true experimental design to assess program impact in the 1977-78 school year. True control and experimental groups have been established. It is important for the School District to maintain these true control groups throughout the school year to insure that attrition is minimized and accounted for.

3. Increase Non-Traditional Career Opportunities and Role Models for Students.

Both male and female students must be encouraged to explore non-traditional careers. No male career explorations were in nontraditional male career areas. Few female career explorations were in nontraditional female career areas. Both sexes must be provided with greater opportunities to explore nontraditional careers. More nontraditional role models may help to increase student explorations of nontraditional careers. Few community instructors engaged in nontraditional work were recruited this year. Students may be more willing to explore nontraditional career areas if provided more nontraditional role models.

4. Additional Staff Training in Sex Fairness.

Program staff did not seem comfortable with the concept of sex fairness. They found it hard to distinguish between traditional and non-traditional careers for males and females (e.g., staff considered an exploration by a male at the front desk of a motor hotel to be a non-traditional career). Staff also seem uncomfortable with encouraging students to pursue nontraditional careers. Additional staff training seems essential to the amelioration of this problem.

5. Additional Staff Training in Individualization of Instruction.

Discussions with staff showed a lack of understanding of individualized instruction and its implementation. In-service training for staff seems appropriate in the use of assessment procedures and the development of learning plans. Curriculum imbedded tests and other instructional materials should be acquired which may help staff develop more detailed individualized learning plans for students.

6. Diminished Use of School District of Philadelphia as Community Learning Site.

More opportunities for career explorations and investigations are offered by the Philadelphia School District than by any other employer. A number of these opportunities (e.g., teachers, computer operators, secretaries) are legitimate sites. Several sites however are training programs offered at the JFK Center for Vocational Education. These sites do not offer students the full dimension of experiences obtainable at a learning site in the community. For this reason, it is recommended that these be replaced with learning sites in the community which will integrate the training experience with other aspects of careers.

REFERENCES

Horst, D.P., Tallmadge, G.E. & Wood, C.T. A practical guide to measuring project impact on student achievement. Washington, D.C.: U.S. Government Printing Office, 1975. (Stock No. 017-080-01460)

APPENDICES

APPENDIX A

COMMUNITY PARTICIPANTS

Presbyterian University Medical Center
Shaiman, Boardman and Schermer
Philadelphia Department of Revenue
Children's Hospital of Philadelphia
School District of Philadelphia
Hospital of the University of Pennsylvania
KYW-TV
Joseph Goane
Jean Madeline, Inc.
Sheraton Airport Inn
Philadelphia International Airport
Richard Lasko
Don Wilson
Federal Aviation Administration
Globe Times Newspaper
DMB Graphics
Neighborhood Revitalization Effort
Defense Personnel Support Center
Philadelphia Naval Shipyard
Ground Services, Inc.
Spanish Merchants Association
WRTI FM
Turino Caterers
Department of Public Welfare
School of Dental Medicine
American Airlines
Eastern Airlines
Scott Paper Company
District Attorney's Office
WHYY-TV
Tinicum National Environment Center
Louis Goldsmith, Inc.

The Spot
Lou Grimaldi
Marine Corps
City Hall

APPENDIX B

INSTRUMENTS

~~PAGES~~ Appendix B OF THIS DOCUMENT
HAVE BEEN REMOVED PRIOR TO ITS SUBMISSION
TO THE ERIC REPRODUCTION SERVICE BECAUSE
THEY CONTAINED COPYRIGHTED MATERIAL.

APPENDIX C

CONTRACT FOR EVALUATION OF BEBCE PROGRAM

THE SCHOOL DISTRICT OF PHILADELPHIA
BOARD OF EDUCATION
PARKWAY AT TWENTY-FIRST STREET
PHILADELPHIA, PENNSYLVANIA 19103

OFFICE OF LEGAL COUNSEL
Phone #215.299.7681, 2

June 1, 1977

Mr. Donald W. Carey
Director of Administration
1700 Market Street, Suite 1700
Philadelphia, PA 19103

RE: SPECIAL AGREEMENT
EVALUATION SERVICES (Building Experienced Based Career Education

Dear Mr. Carey:

Enclosed for your files is a completely executed copy of the above-captioned Special Agreement between your agency and The School District of Philadelphia.

Very truly yours,

Alan H. Gilbert

ALAN H. GILBERT
Assistant Counsel

cll

Enclosure

APPROVED IN BOARD MINUTES
DATED February 14, 1977
Contract # 5

CONTRACT FOR SERVICES

THIS AGREEMENT is made and entered into this 14th day of February, 1977, effective upon signing by and between the SCHOOL DISTRICT OF PHILADELPHIA, PENNSYLVANIA (hereinafter called "School District") and RESEARCH FOR BETTER SCHOOLS, INC. OF PHILADELPHIA, PENNSYLVANIA (hereinafter called "RBS").

WHEREAS, School District wishes to contract for the evaluation services involved in evaluating the "Building Experience Based Career Education" program in Philadelphia funded as a VEA Part D exemplary project; and

WHEREAS, RBS has available the consultant services, management techniques, methods and programs essential to such an undertaking;

WHEREAS, on February 14, 1977, the Board of Education of School District authorized a contract with RBS to evaluate the Experience Based Career Education Program;

NOW, THEREFORE, the parties agree as follows:

1. To enter into this agreement for consultant services to be rendered to School District by RBS in accordance with this Agreement and Exhibit "A" (Proposal by RBS dated January 14, 1977, entitled, "Building Experience Based Career Education"), made a part hereof by reference.

2. PROCEDURE:

(a) Within two weeks after date of acceptance of this agreement, RBS consultants shall review with School District project director designate(s), the detailed action plans contained in Exhibit A. Upon approval of the plans by the School District project director designate(s), planning and scheduling sessions shall be held between the staffs of RBS and School District, and such other individuals and groups as seem appropriate in order to implement the project as outlined in Exhibit A.

(b) The work required in carrying out the services set forth herein requires that School District make available those records, data and information that are needed to complete the project. RBS agrees to use such materials and information with discretion and professional confidence, and promptly return them to the proper person or depository.

(c) All conferences, interviews and other sessions shall be carried out with as little disruption as possible to the normal activities of the participants.

(d) RBS agrees to conduct the consultant services set forth herein with the full cooperation of all appropriate officials.

3. RESEARCH FOR BETTER SCHOOLS, INC.

(a) RBS is a private nonprofit corporation staffed with both fulltime and parttime personnel who possess broad training in all phases of an educational enterprise.

(b) RBS carries a full line of all appropriate insurance to protect both clients and employees.

4. ENTIRE AGREEMENT:

This writing, plus Exhibit A, constitute the entire agreement between School District and RBS.

5. SCHEDULES AND FEES:

(a) Service shall commence on February 14, 1977, and conclude on August 31, 1977 (details in Exhibit A).

(b) The total fee to be paid to RBS by School District shall be $9,783.00 (details in Exhibit A).

(c) The schedule for payment shall be:

$4,000.00 by February 14, 1977;
$1,783.00 by May 1, 1977;
$4,000.00 thirty (30) days after submission of a final report approved by School District.

(PBRS 2277 04 897)

IF AGENCY, supply TAX IDENTIFICATION NUMBER: 23-6411869
IF INDIVIDUAL, supply SOCIAL SECURITY NUMBER: _____

6. Nothing herein consisutes RBS the employee of School District for any purpose whatsoever, and RBS shall have no right to bind or obligate School District in any manner whatsoever.

7. All parties hereto agree that in the performance of this Agreement there shall be no discrimination against any employee or other person on account of race, color, sex, religious creed, ancestry, or national origin, and School District upon receipt of evidence of such discrimination shall have the right to terminate said Agreement.

8. All rights to any reports, books, films, etc., produced out of funds provided by School District shall become the property of School District.

9. Communications shall be sent to the following individuals responsible for the services outlined in this Agreement:

MR. ALBERT I. GLASSMAN
Activity Manager for School District

For RBS Michaelita Quinn

IN WITNESS WHEREOF, the parties hereto have set their hands and seals the day and year aforementioned.

Examined and Approved:

Albert I. Glassman

Albert Sellar
for Internal Controller

THE SCHOOL DISTRICT OF PHILADELPHIA

Matthew W. Thomas
President

Virgin F. Brazil
Assistant Secretary

RESEARCH FOR BETTER SCHOOLS, INC.
OF PHILADELPHIA, PENNSYLVANIA

Robert G. Scanlon